





9168 - S. 1 Dint

1477

# INAL ENVIRONMENTAL IMPACT STATEMENT ON LEAD CONTENT IN PAINT



Volume I & II

May 1977



CONSUMER PRODUCT SAFETY COMMISSION WASHINGTON, D.C. 20207



## FINAL ENVIRONMENTAL IMPACT STATEMENT ON LEAD CONTENT IN PAINT

## Volume I May 1977

#### Prepared by:

Economic Analysis, Hazard Identification and Analysis Directorate
U.S., CONSUMER PRODUCT SAFETY COMMISSION. 3
5401 Westbard Avenue
Washington, D.C. 20207

Date: Draft Environmental Impact Statement Available: February 4, 1977

Date: Final Environmental Impact Statement Available: May 27, 1977

QV 392 U564f 1977 v.1

ALTERNATION OF THE STORY OF THE STORY

#### TABLE OF CONTENTS

Title	Page
Volume I	
Summary	S-1
General Background	
deficial background	
Legislative Background	I-A-1
Uses of Lead in Paint	I-B-1
General Economic Background of the	I-C-1
Paint Industry Health Effects of Lead in Paint	1-C-1
and Risks From Consumer Products	I-D-1
Description of Regulatory Alternatives	
Introduction	II-A-
Discussion of Variables	II-A-3
Discussion of Basic Alternatives	II-A-5
Environmental Impacts of the Alternatives	
Introduction	III-l
Alternative No. 1	III-1
Alternative No. 2	III-2
Alternative No. 3	III-6
Alternative No. 4	III-7
Alternative No. 5 Economic Effects of the Regulation	III-8
Economic Effects of the Regulation	111 8
Summary of Unavoidable Adverse Effects	IV-1
Measures Under Consideration to Minimize	
Unavoidable Negative Environmental Effects	V-1
Relationship Between Local Short-Term Uses of	
Man's Environmental and the Maintenance and	
Enhancement of Long-Term Productivity	VI-1
Irreversible and Irretrievable Commitment	
of Resources Which Would Be Involved in	
the Proposed Action If It Were Implemented	VII-l

#### TABLE OF CONTENTS (continued)

	Page
References	VIII-1
Glossary	IX-1
Appendix A - Health Effects of Lead In Paint Risks From Consumer Products (Detailed Background)	
Appendix B - Consumer Product Safety Commission Notices Regarding Lead-Based Paint in the Federal Register. August 10, 1976	5.
Appendix C - Consumer Product Safety Commission Notices Regarding Lead-Based Paint in the Federal Register. October 6, 1976 February 16, 1977, and March 28, 1977.	ó,
Appendix D - Listing of Organizations from whom Comments have been Requested.	
Volume II	
Summary	X-1
Discussion of Comments	XI-1
Listing of Organizations Submitting Comments	XII-1
Copies of Comments	

#### SUMMARY LEAD CONTENT IN PAINT

- ( ) Draft Environmental Statement
- (X) Final Environmental Statement

Responsible Office: Mr. Walter Hobby, Director

Bureau of Economic Analysis

Consumer Product Safety Commission

5401 Westbard Avenue

Room 533

Washington, DC 20207

Telephone: 301/492-6539

Name of Action: (X) Administrative () Legislative

Description of Activity: The Consumer Product Safety Commission (CPSC), an independent regulatory agency of the Federal government, is mandated to reduce unreasonable risks of injuries associated with consumer products. CPSC is considering the regulation of lead-containing paints under the Consumer Product Safety Act. The primary purpose of this is to help protect children from lead poisoning due to accessibility to lead-containing paints and painted surfaces.

The Commission proposes to declare as banned hazardous products (1) lead-containing paint and similar surface-coating materials containing more than 0.06% lead, (2) toys and other articles intended for use by children bearing lead-containing paint or other similar surface-coating materials containing more than 0.06 percent lead, and (3) articles of furniture bearing lead-

containing paint or other similar surface coating materials containing more than 0.06 percent lead. The intent of this proposal is to change the existing regulations by (1) banning furniture with paint containing more than 0.06 percent lead, and (2) establishing the permissible lead level under the Commission's regulations at the same level permitted under the Lead Based Paint Poisoning Prevention Act (LBPPPA) Amendments (P.L. 94-317). The effect of the regulation will be that no lead above the limit will be used in paints or coatings or applied to toys and other children's articles or furniture for consumer use. Because the Commission has determined that existing scientific data do not support a finding that a lead level in paint above 0.06 percent is safe, the definition of "lead based paint" under the mandate of Congress through the LBPPPA will become, as to paint manufactured after June 22, 1977, paint containing more than 0.06 percent lead.

Therefore, while regulatory alternatives posed by the CPSA proposal present various options, the goal of the proposal is to ban lead containing paint for consumer uses as well as certain other consumer products bearing such paint above the 0.06 percent lead level. The anticipated date for publication of the final regulation has been established, by notice published March 28, 1977 (42 FR 16445), as July 14, 1977.

Environmental and Economic Impact: The action will result in consumer paints and certain coated consumer products having less hazardous levels of lead. No significant impact on the environment has been identified. The action will have a moderate beneficial health impact on children who may ingest chips and peelings of such paints. Slight adverse impacts will be incurred by the paint industry in reformulating types of coatings to eliminate the use of lead -- particularly lead driers -- in paint intended for consumer use and for use on the types of products listed above. Major adverse effects have been identified for manufacturers of some specialty coatings such as auto refinishing paints, touch-up paints, coatngs, industrial maintenance coatings, and graphic arts paint. The National Paint and Coatings Association has petitioned for an exemption for these specialty coatings. The Commission will address the exemptions question in issuing final regulations.

Another slight adverse impact on the industry is the need to conduct routine monitoring for lead levels in paints, which is expected to cost \$5-8 million per year. Other beneficial and adverse impacts associated with the proposed action, which are considered to have somewhat less effect that the impacts mentioned here, are described in Section III of the EIS.



## FINAL ENVIRONMENTAL IMPACT STATEMENT ON LEAD CONTENT IN PAINT

#### I. GENERAL BACKGROUND

#### A - LEGISLATIVE BACKGROUND

## RECENT CPSC NOTICES

The Consumer Product Safety Commission (CPSC) is an independent regulatory agency of the Federal government. A primary mission of the Commission, activated on May 14, 1973, and mandated by the Consumer Product Safety Act (15 U.S.C. 2051 et. seq.), is to reduce unreasonable risks of injury associated with consumer products.

In addition to the Consumer Product Safety Act, the CPSC also administers the Federal Hazardous Substances Act; the Refrigerator Safety Act; the Poison Prevention Packaging Act; and the Flammable Fabrics Act.

In the <u>Federal Register</u> of August 10, 1976 (41 FR 33636), the CPSC issued three notices dealing with lead containing paint. The first notice (41 FR 33636) concerned the CPSC determination under the 1976 amendments to the Lead Based Paint Poisoning Prevention Act (LBPPPA) of whether a level of lead in paint which is greater than 0.06 percent but not in excess of 0.5 percent is safe. The second (41 FR 33637-33639) was a CPSC proposal to ban lead-containing paint under the Consumer Product Safety Act (FHSA). The proposal would ban paint and other similar surface-coating materials containing lead above the LBPPPA level as well

as toys, articles intended for children, and articles of furniture bearing such paint or similar surface coating materials. Printing inks are not covered by the proposed regulation. The third notice proposed to revoke existing regulations under the FHSA related to lead containing paints. While the subject of the present Environmental Impact Statement (EIS) directly relates only to the proposed CPSA banning rule, the other notices are relevant and will be discussed below.

The August 10, 1976 proposal is presented in Appendix B of this EIS.

## THE LBPPPA AND SUBSEQUENT AMENDMENTS

The LBPPPA, 42 U.S.C. 4801 et seq., was enacted in 1971 (P.L. 91-695) to deal with the problems of childhood lead poisoning caused by the ingestion of lead based paints. The Act, among other things, established grants for the detection, treatment, and elimination of lead based paint poisoning; authorized a research program; and provided for the prohibition after January 13, 1971, of the use of lead based paint in residential structures constructed or rehabilitated by the Federal government, or with Federal assistance in any form. The term, "lead based paint" was defined as any paint containing more than 1 percent lead in the dried paint film.

The LBPPPA was amended by Public Law 93-151 on November 9, 1973. The law redefined the term "lead based paint" to mean any

paint containing more than 0.5 percent lead by weight in the total nonvolatile content of liquid paints or in the dried film of paint already applied. This percentage of lead in paint was to be in effect between November 9, 1973 and December 31, 1974. After December 31, 1974 any paint containing more than 0.06 percent lead was considered lead based paint unless the Chairman of the Consumer Product Safety Commission, prior to December 31, 1974 could determine, based on appropriate research studies, that another level of lead in paint, not to exceed 0.5 percent, was safe. If this were to happen, then such other level of lead in paint would form the basis for the definition of lead based paint.

The 1973 amendments directed the Department of Health,

Education and Welfare (HEW) to prohibit the application of lead

based paint to any toy, furniture, cooking utensil, drinking

utensil, or eating utensil. Further, the Department of Housing

and Urban Development (HUD) was to prohibit the use of lead based

paint in residential structures constructed or rehabilitated by

the Federal government or with Federal assistance in any form.

The LBPPPA amendments also called for the Chairman of the CPSC to "conduct appropriate research on multiple layers of dried paint film, containing the various lead compounds commonly used, in order to ascertain the safe level of lead in residential paint products. No later than December 31, 1974, the Chairman was required to submit to Congress a "full and complete report

of his findings and recommendations as developed pursuant to such programs, together with a statement of any legislation which may be enacted or any changes in existing law which should be made in order to carry out such recommendations."

On December 23, 1974, the Chairman of the CPSC submitted
"A Report to Congress in Compliance with the Lead Based Paint
Poisoning Prevention Act, as Amended." In his report, the
Chairman interpreted a "safe level" of paint as "a level where
we have a reasonable assurance, with expected exposures, of the
absence of serious toxic effects." Based on the health effects
information available at that time, which was summarized in
his report, the Chairman determined "that a 0.5 percent level
of lead in paint is safe."

On June 23, 1976, the LBPPPA was extended and revised by enactment of the National Consumer Health Information and Health Promotion Act (Public Law 94-317). The LBPPPA, as amended, among other things, directs HEW to take action to prohibit the application of lead based paint to cooking utensils, eating utensils, and drinking utensils. In addition, HUD is to take action to prohibit the use of lead based paint in residential structures constructed or rehabilitated by the Federal government, or with Federal assistance in any form. These directions are reiterations of the original LBPPPA and the 1973 amendments. In the 1976 amendments, the CPSC (rather than HEW) is charged with prohibiting the application of lead based paint to any toy or furniture article.

Section 501 (3)(A) of the LBPPPA as amended in 1976 once again defines lead based paint as paint containing more than 0.5 percent lead by weight. Section 501 (3)(B), however, directs the CPSC to determine, by December 23, 1976, if another level of lead in paint is safe which is greater than 0.06 percent, but not over 0.5 percent. This determination must be based on (1) oral hearings, (2) available data and information, (3) recommendations of the Department of Health, Education and Welfare (including the Center of Disease Control), and (4) recommendations by the National Academy of Sciences. If a level of lead between 0.06 percent and 0.5 percent is determined by December 23, 1976 by CPSC to be safe, lead based paint will, effective six months after the determination, be defined as paint containing more than the established safe level.

Section 501 (3)(b) also specifies that if a safe level of lead in paint is not determined by CPSC, then lead based paint will mean paint containing more than 0.06 percent lead by weight. This definition would apply to paint manufactured after June 22, 1977.

The Commission held public hearings on September 13, 1976.

Among others, various Federal agencies, state and local health organizations, trade associations, and consumer groups testified.

Additional comments were received on the LBPPPA determination as well as on the regulations proposed August 10, 1976. After considering all available information, including the recommendations of HEW, and NAS, the Commission, on December 16, 1976,

decided that it was unable to determine that a level of lead in paint over 0.06 percent was safe (see 42 FR 9404, February 16, 1977). Therefore, as to paint manufactured after June 22, 1977, under the provisions of the LBPPPA, the definition of the term lead based paint will be paint containing more than 0.06 percent lead by weight (calculated as lead metal) in the total nonvolatile content of the paint, or the equivalent measure of lead in the dried film of paint already applied, or both.

## FHSA REGULATIONS

On March 11, 1972, the Food and Drug Administration (FDA) issued a regulation in the <u>Federal Register</u> under the Federal Hazardous Substances Act declaring household paints and other similar surface-coating materials containing more than 0.5 percent lead to be banned hazardous substances.

This regulation applied to paint shipped in interstate commerce after December 31, 1972 (37 FR 5229, 21 CFR 191.9 [a][6]). The regulation also declared paint containing more than 0.06 percent lead to be similarly banned after December 31, 1973. Artists' paints and related materials were subsequently exempted from this regulation. In addition, toys and other articles intended for use by children bearing such paint or similar surface-coating materials were banned.

However, on August 10, 1972 the FDA issued a notice in the Federal Register (37 FR 16078) in response to paint industry

objections confirming those portions of the regulations pertaining to the 0.5 percent lead level, but stating that those portions pertaining to the 0.06 percent lead level would be the subject of a separate document to be published later.

Effective May 14, 1973, functions under the FHSA were transferred from the FDA to the newly-established Consumer Product Safety Commission (CPSC). As a part of this transfer, the CPSC received and retains jurisdiction over the development of regulations pertaining to the use of lead in paint.

On December 27, 1973, the CPSC issued a notice in the <u>Federal</u> Register (38 FR 35302) to continue the 0.5 percent lead level in paints pending completion of animal studies underway regarding the toxicity of paints containing lead. On December 9, 1974, the CPSC again issued a notice in the Federal Register (39 FR 42902), continuing the 0.5 percent lead level pending the results of ongoing research, which included a report being prepared by the National Academy of Sciences (NAS).

As of now, under the FHSA the 0.5 percent lead level remains in effect, and the 0.06 percent provisions are stayed (recodified as 16 CFR 1500.17[a][6]).

The National Paint and Coatings Association (NPCA), a trade association representing the surface coatings manufacturing industry, petitioned the FDA to amend 21 CFR 191.9(a)(6) (now 16 CFR 1500 17[a][6]) to exempt the lead containing coatings listed below from classification as banned hazardous substances for consumer use.

- 1. Automotive, agricultural, and industrial equipment refinish coatings.
- 2. Industrial (and commercial building) maintenance coatings, including traffic and safety marking coatings.
- 3. Graphic arts coatings (products marketed solely for application on billboards, road signs, and similar uses and for identification marking in industrial buildings).
- 4. Touch-up coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicles, and appliances.
  - 5. Exterior marine coatings for small craft application.
    - 6. Exterior rubber-based roof coatings.
- 7. Exterior primer coatings for wood siding containing extractives (products marketed solely for application on redwood and cedar).

On December 5, 1972, FDA published in the <u>Federal Register</u> (37 FR 25849-26120) a proposal to exempt these seven types of coatings from classification as banned hazardous substances. It was noted, however, based on the petition, that these products should have the following inscriptions on the main panel of their labels:

#### "WARNING"

"CONTAINS LEAD. DRIED FILM OF THIS PAINT MAY BE HARMFUL IF EATEN OR CHEWED."

In addition, these products should bear the following inscription (or equivalent) on their labels:

"Do not apply on toys and other children's articles, furniture, or interior surfaces of any dwelling or facility which may be occupied or used by children.

"Do not apply on those exterior surfaces of dwelling units, such as window sills, porches, stairs, or railings to which children may be commonly exposed.

"Keep out of reach of children."

To date, this proposal has not been acted upon by FDA or CPSC (which assumed jurisdiction over the FHSA regulation in 1973). However, the preamble to the December 8, 1972 proposal stayed the provisions of the regulations pending issuance of the final regulations. Issuance of these proposed exemptions will be considered by CPSC, in acting upon its August 10, 1976 proposal to regulate lead containing paint and certain other consumer products under the CPSA rather than the FHSA.

#### CPSA PROPOSAL

As stated in the preamble to the August 10, 1976, notice proposing the regulation of lead-containing paint under the CPSA, the proposal would declare "as banned hazardous products (1) lead-containing paint and similar surface-coating materials containing more than 0.06 percent lead, (2) toys and other articles intended for use by children bearing lead-containing paint or other similar surface-coating materials containing more than 0.06 percent lead, and (3) articles of furniture

bearing lead containing paint or other similar surface coating materials containing more than 0.06 percent lead." (41 FR 33637) The intent of this proposal is to change the existing regulations by (1) adding furniture to the list of banned products, (2) establishing the permissible lead level at 0.06 percent under CPSA at the same level permitted under the LBPPPA. As stated previously, the Commission has determined that the definition of "lead based paint" under the LBPPPA will become, after June 22, 1977, paint containing more than 0.06 percent.

Therefore, while various options are possible in regulating under the CPSA proposal, the goal of the proposal is to ban lead containing paint for consumer uses as well as other consumer products within the scope of the proposal which have surface—coatings containing more than 0.06 percent lead. The anticipated date for the final regulation, which may be extended by the Commission by notice published in the Federal Register, had been established by notice published October 6, 1976 (41 FR 44126), as April 1, 1976. A notice published on March 28, 1977 (42 FR 16445), revised the date of promulgation to July 14, 1977. These notices are presented in Appendix C of this EIS.

#### REVOCATION OF FHSA REGULATIONS

It has been noted earlier in this section that the functions under the Federal Hazardous Substances Act (FHSA) came under the jurisdiction of the CPSC in 1973. Lead based paint regulations have been covered under the FHSA up to now.

The CPSC has announced in the August 10, 1976 issue of the Federal Register (41 FR 33637-33640) that it will revoke the lead based paint regulations which fall within the jurisdiction of the FHSA, and instead regulate lead based paints under the Consumer Product Safety Act (CPSA).

The FHSA revocation would be necessary once the CPSA requlation is issued to prevent duplication and possibly conflicting regulations. The CPSC has stated that the regulation of leadcontaining paint under the CPSA instead of under the FHSA will be in the public interest because it will permit consolidation of the CPSA proceeding with the LBPPPA determination and thus facilitate greater public participation and a more expeditious resolution of the issues. To have amended the FHSA regulations rather than to proceed under the CPSA could have resulted, because of the procedural requirements of the FHSA, in the need for a lengthy, formal adjudicatory hearing in addition to the opportunity for an informal oral legislative-type hearing which has already been held as required by the LBPPPA. Since many of the same matters would be at issue under both of such hearings, the Commission believed it was in the public interest to hold a single legislative-type hearing. The CPSA, on the other hand, requires the opportunity for a legislative type hearing, and thus the hearing, which was conducted on September 13, 1976 was able to satisfy the requirements of both the CPSA and the LBPPPA.

#### B - USES OF LEAD IN PAINT

#### INTRODUCTION

## (a) Definition of Paint

In common usage, the word "paint" is subject to various interpretations. In its narrowest definition, paint is defined as a product usually consisting of pigments, resin, solvents, driers, and additives of various types. The term "paint" may be applied to many types of surface coatings such as wall paint, exterior house paint, traffic paint, enamel, undercoating, primer, sealer, varnish, lacquer, bituminous roof coating, filler, and stain. In spite of movements to adopt other nomenclature, "paint" remains established as the general term for all of these coatings and (1) will be generally used in this manner in this document.

Paints are classified as either trade sales goods or industrial coatings. Trade sales paints are those surface coatings manufactured as stock shelf items, and are sold primarily by retailers directly to consumers and also to jobbers, dealers, painters, automotive refinishers and builders. Industrial paints are used by industrial or commercial establishments on consumer and industrial products, and are generally formulated by the manufacturer to particular specifications.

#### (b) Basic Constituents of Paint

The primary functions of the constituents used in paints are:

- 1. <u>Natural or Synthetic Resins</u> serve to form the protective coating film, generally through oxidation and polymerization of the unsaturated constituents of the drying oil.
- 2. <u>Solvents</u> function as thinners to suspend pigments, dissolve film-forming material, to thin concentrated paints for better handling, and to permit their application to surfaces.
- 3. <u>Driers</u> accelerate the drying rate of the paint film in air through oxidation and polymerization. Driers are only applied to solvent-thinned (oil-based) paints, and are not normally used in industrial coatings. Lead compounds are sometimes used as driers. A more detailed discussion of driers is provided later in this section.
- 4. Pigments are undissolved finely divided particles which function to protect and strengthen the paint film, occasionally to prevent corrosion to metal surfaces, and to impart an aesthetic appeal. Historically, lead compounds have been used extensively for white, yellow, orange, and red pigments. These are also discussed later in this section.
- 5. Extenders function to reduce pigment usage and cost and to increase the covering and weathering power of the pigments.

Examples of pigments and extenders include the following:

Titanium dioxide Red lead Talc Calcium carbonate Mica Zinc oxide
White lead
Clay
Barytes
Carbon black
Chrome yellow

Pigments used during 1975 which contained a high concentra(2)
tion of lead were estimated as follows:

Pigments	Tons
Pigment Colors White Lead	10,000
Red Lead and Litharge Leaded Zinc Oxide	66,000

## (c) Uses of and Properties Imparted by Paint

Paint is applied to wood, metals, concrete, and other substrates in virtually all of the current uses of these materials.

In some form paint is a universal substance in its applications in dwellings, places of work, furnishings, transportation, tools, appliances, other structures, and objects of daily use. In these applications, it provides decorative properties and protection properties against corrosion and the elements in outside usages.

While paint is generally acknowledged to protect and decorate, it can also serve many other useful purposes. Lighter colors with higher reflectance values can enhance lighting; white paint promotes cleanliness by increasing visibility of dirt; and a hard glossy paint surface is easier to clean than more porous ones; safety is furthered through painted traffic indicators, fire retardance of construction materials, color coding of machinery

parts and pipes, and nonskid paints. Outside paint may aid interior temperature control--light colors reflect and darker colors absorb heat--and special paints are also used to preserve wood and to provide electrical insulation or conductance, military camoflage, luminescence, and grain simulation (wood, hammered metals, leather, wrinkled textures, etc).

## GENERAL USES OF LEAD IN THE U.S.A.

Lead was one of the first metals mined in North America, (4) where it was sought after especially for musket shot. With the ensuing development and growth of industry and technology, lead and its many compounds have gained widespread use in the United States and, indeed, in all industrialized countries.

As shown in Exhibit I, which indicates the U.S. consumption of lead by product in 1975, the single most important commercial use of lead is in the manufacture of lead-acid storage batteries. In addition to this, and its use in paints, lead and it compounds are used in a great variety of products and processes.

(4)
For example, they are used in:

- Tetraethyl lead, a gasoline antiknock compound
- Matches
- Dyes
- Putty and calking
  - Ceramics
  - Textile printing
  - Detonators for explosives

- Insecticides
- Antifriction metals, solder, and type metal
- Covering cables
- Lining for laboratory sinks and tanks
- Plumbing
- Supporting heavy machinery
- Protective shielding against x-rays and nuclear radiation

#### LEAD IN PIGMENTS

#### (a) Early Uses

Basic carbonate white lead is the oldest white pigment known to man. Its history extends back to the fourth century B.C., for there is a written reference to white lead in the works of Xenophon, probably written about 400 B.C.

During the latter part of the Middle Ages it was used by artists in paintings on wood and for the decorative paintings (5) on castle and church interiors.

Red lead, like white lead, is a pigment of ancient origin.

It was accidentally discovered when some jars of white lead were subjected to heat during the burning of a house. For centuries thereafter, red lead was made in this manner, i.e., by roasting white lead.

An English patent for the manufacture of red lead from metallic lead was granted in 1622. In the eighteenth century, (5) red lead was manufactured in England on an extensive scale.

#### (b) Properties of Lead Pigments

Physically, all lead pigments are powders. It should be noted that many lead based paints generally contained 50% lead or more.

Other physical and chemical properties of lead pigment which are used in paints are described briefly below:

1. Lead Chromate (Chrome Yellow and Chrome Orange).

Normal lead chromate is a medium chrome yellow pigment. The more orange shades contain some lead hydroxide and reach basic lead chromate, the standard chrome orange. Green shades of chrome (1) yellow, often called "primrose," contain lead sulfate.

These products currently account for more than half of the total lead used by the paint industry (1975 report), and are used in paint products not generally sold to consumers. The largest use is in yellow traffic paints for which chrome yellow is chosen for its brightness, good hiding power, and durability. Other uses are on school buses and gasoline stations. Chrome orange is used (1) only in small quantities.

Molybdate red is a lead chromate containing some lead molybdate. The pigment becomes redder with increasing quantities of lead molybdate. It is largely used as a printing ink component, (1) with only very small amounts used in the paint in industry.

2. Red Lead and Lead Silico-Chromate. These materials are anti-corrosive pigments and produce the best, and in many cases, the only satisfactory primers for structural steel for (1) buildings and bridges.

3. <u>Basic Carbonate White Lead</u>. The annual U.S. production of white lead grew from about 3,000 tons in 1830 to more than 118,000 tons in 1936. The total lead-containing white pigment production in 1936 was 166,000 tons as compared to about 3,000 tons in 1975.

A large proportion of total white lead production prior to 1940 was used in paint. White lead was the principal source of white pigment used by the paint industry. However, about 1940 white lead began to give way to titanium dioxide and zinc oxide which are more resistant to yellowing from sulfur containing gases and which have lower chalking tendencies.

- 4. White Basic Lead Sulfate. This is a recent pigment in comparison with basic carbonate white lead, having been originated in 1855. The production and use of this pigment is relatively low.
- 5. <u>Leaded Zinc Oxide</u>. This white pigment was introduced into the paint industry in about 1896. The paint industry consumed practically the entire production of leaded zinc oxide prior to 1940, but its use by the industry has diminished to relatively low levels during the past 40 years.
- 6. <u>Basic Lead Silicate</u>. Like white lead and basic lead sulfate, basic lead silicate has almost disappeared from modern paints for performance and economic reasons. Basic lead silicate is used by some manufacturers in coatings for application to redwood and western red cedar because it is more resistent than other pigments to staining from the water-soluble dyes in these (1) substrates.

## LEAD IN DRIERS

Certain types of lead compounds are used as drying agents in many types of solvent-thinned paint marketed for residential use.

Without driers, these paints may remain soft, collect dirt, have (7)

poor durability and be generally unsatisfactory products. Driers are not used in industrial coatings or in latex (water-thinned) paints.

Lead compounds used as driers include naphthenates, resinates, octoates, linoleates, and tallates. However, the lead metal ion is the key drying catalyst. About 0.1%-0.2% lead by weight in the dried paint film is usually required to be effective. Lead driers are almost always used in combination with other drier compounds and usually have a synergistic effect on the action of the other driers. Lead, calcium and zirconium driers promote "through drying." Other driers such as cobalt and manganese promote "surface drying."

Although lead driers are perhaps the most effective in terms of paint film "through dry" characteristics, other types of driers may be substituted for lead with little or no sacrifice to paint performance. However, there is no consensus as to which non-lead driers should be used in specific applications.

It appears to be most difficult to substitute other driers for lead driers in areas such as New England and the Pacific Northwest, where climatic conditions sometimes prevail in which olow temperatures (less than 45 F) are accompanied by high humidity

levels. At these colder temperatures, latex (or water-thinned) paints cannot be used. Substitutes for lead driers under these conditions may not provide equal performance.

LEAD AS A
CONTAMINANT
IN PAINT

# (a) Contained in Raw Materials

Lead may be contained in the raw materials used in paint as "added lead"- an inherent part of the composition of the material(2)
or as a "contaminant".

### (b) Added Lead

Lead-bearing pigments and lead driers are the basic potential sources of added lead in paint.

- 1. Water-Thinned. The added lead in latex paints is no longer a major problem because at the current 0.5 percent limit for lead in consumer paints, no leaded pigments can be used. Practically the only way that lead is added is through alkyd modification of the latex. Since some alkyds may contain lead compound catalysts, about 0.01 percent lead metal based on total alkyd solid is possible.
- 2. <u>Solvent-thinned Paints</u>. Added lead in the form of lead pigments in solvent-thinned paints, like water-thinned paints, is not considered a problem, since to conform to the present 0.5 percent limit for lead content, these pigments cannot be used.

Virtually all of the added lead in trade sales paint today is used in paints in the form of lead driers (lead naphthenates, octoates, etc). Lead driers (used predominantly in combination with cobalt and manganese driers) are always used with film formers which contain substantial proportions of drying oils such as linseed and tung oils. These film formers in turn are almost exclusively used in solvent-thinned paints.

# (c) Trace Contamination From Raw Materials

The following data show some of the materials used in manu(2)
facturing paints and the reported amounts of contamination:

Material	Lead, ppm*
Titanium dioxide	60
Zinc oxide	700
Calcium sulfate	5-10
Silica sand	5-10
Fumed silicas	5-10
Clays	10-50
Bentonites	5-10
Talcs	5-10
StearatesAl, Ca, Zn	5-10
Mica	5-10
Calcium carbonate	5-10
Iron oxides	0-15
Organic yellow pigments	10-30

<sup>\*</sup> ppm = parts per million parts, by weight.

1. Water-Thinned. The possibility of trace-lead contamination exists in all the components of modern paints.

Although these trace-lead levels are not high, they do contribute to the total lead content and should be considered. In a water-thinned latex paint, water can comprise up to 55 percent of the liquid paint. Data from the Bureau of Water Hygiene of the Environmental Control Administration showed that only 2 percent of the water samples tested exceeded the lead limit of 0.05 milligram per liter (0.000005 percent). Therefore, the trace lead added by water can be neglected.

The other major source of trace-lead contamination in latex paints is the pigment used. It has been reported that some grades of titanium dioxide contain up to 60 ppm of lead metal (0.006 percent). Review of several typical formulations shows that the lead content due to trace contamination can be as high as 0.02 percent of the total solids.

A nationwide CPSC survey in 1974-75 showed that over

95 percent of a broad range of latex based paints sampled (349

paints sampled) contained less than 0.06 percent lead by weight.

2. <u>Solvent-thinned Paints</u>. As in the case of water-based paints, trace contamination in solvent systems does not seem to be a general problem. The CPSC survey referred to above found that of the 709 solvent-thinned paints sampled, 54 (or 7.6%) had lead levels over 0.5 percent, while 68 percent contained lead at less than 0.06 percent.

# (d) Trace Contamination From Previous Batches

Most large companies use separate facilities for production of trade sales and industrial paints. However, the small and medium sized companies (which form the vast majority of the paint industry) use the same equipment for both types of production. Since the use of lead pigments and driers is still permitted in many industrial finishes, there is a possibility of accidental (2) contamination of trade sales paint. Increased equipment washing is seen as the main way to deal with this problem.

Because of the importance of color tone and color matching in the paint industry, most companies are accustomed to following good housekeeping practices as a general rule. But the accidental use of an industrial pigment such as basic lead carbonate in a (2) trade sales paint is always a remote possibility.

Overall, it appears that the lead level in paints from trace contamination is in the range of 0.01 - 0.06 percent.

# USES OF PAINTS AS INDUSTRIAL FINISHES

Paints are generally classified as "trade sales products" or as "industrial finishes". Trade sales products are stock-type commodities generally distributed through wholesale-retail channels. Industrial finishes are specifically formulated to meet the conditions of application and use of the product to

which they are applied and are generally applied as part of the
(1)
manufacturing process. This discussion is directed toward the
industrial finishes.

Industrial finishes are used both for products mainly found in the home and also for products not normally found in the home.

# (a) Industrial Finishes Found In Homes

Industrial finishes found in homes can be broken roughly into two general categories: finishes for wood such as furniture, hardboard and paneling, and finishes for metal such as appliances, (2) metal furniture and toys.

## (b) Wood Finishes

1. <u>Clear Finishes</u>. Major clear finishes used on wood furniture are nitrocellulose lacquer which do not depend on dryers for drying. These lacquers are estimated to account for 75 to 80 percent of the market. As a standard practice, most nitrocellulose lacquers are modified with short oil-length nondrying alkyd resins.

Many of these alkyd resins are catalyzed during the cooking process with litharge (lead oxide); however, the lead content based on total solids is generally less than 0.001 percent.

Other clear finishes for wood furniture include urethanes, cellulose acetate butyrates, polyesters, oleoresinous varnishes, and alkyd-urea coatings.

The above clear coatings are also used for interior plywood, floors, toys, pencils, and various other wood substrates.

The only clear coating from the above list with more than lead content traces would be the oleoresinous varnishes.

These coatings generally require the use of metallic driers to accelerate the drying. Spar varnishes for example, generally contain 0.03 to 0.3 percent lead metal based on total solids.

This lead level meets the present 0.5 percent lead requirement, but probably could not meet a 0.06 percent lead requirement.

However, spar varnish is normally applied as a marine coating and is not frequently used in the home. Substitute coatings for spar varnish include epoxies, urethanes, styrene-butadiene rubber (SBR) - and chlorinated rubber-based paints and varnishes.

Although these substitutes are nighly resistant to acids and alkalies, they are not generally resistant to salt water or organic solvents, as is spar varnish. The use of substitute driers in spar varnish will prolong drying times by about 50 percent.

2. <u>Pigmented Finishes</u>. A very low percentage of wood furniture is coated with pigmented coatings today. Possibly the largest use of pigmented finishes is in the areas of children's furniture and kitchen furniture. However, the trend is to molded plastic in both applications. Baby cribs now are using plastic strips to cover edges which the child is likely to chew. At the present time, it does not appear that furniture manufacturers are using pigmented coatings containing any added lead in the form of driers or pigments.

3. Stains. There are three types of stains being used today- oil, latex, and N.G.R. (nongrain-raising). There is little use of the latex stain in fine furniture manufacturing because it causes grain raising and requires additional sanding. Oil stains generally require driers, and lead drier is usually added at 0.2 to 0.3 percent based on the oil. Cobalt driers are usually used in combination with the lead in this application. Oil stains are not normally used by furniture manufacturers since they do not dry rapidly enough. Oil stains are used by furniture refinishers and may be found in the home. If lead driers were not used, it is likely that other drier substitutes would be used.

The N.G.R. stain consists of pigments suspended in an alcohol solvent and dries by evaporation. No lead compounds are added to this type of stain.

### (c) Metal Finishes

1. Metal Furniture. Manufacturers use a variety of coating materials which include alkyds, acrylics, polyesters, and epoxies. The most widely used systems are the alkyds which are generally baking enamels. All of the above coatings are baked, and therefore no lead driers are required. However, a major problem exists for these manufacturers when trying to get certain bright colors such as yellows, golds, greens, and some browns without using lead pigments. Non-lead containing substitute pigments do not accurately match these colors. When using the lead pigments to get these bright colors, the lead content

required to dry the coating can be as high as 12 percent. These coatings are baked and are generally hard and glass-like.

Where lead primer may be used on furniture articles, several substitutes exist. These include zinc chromate, zinc dust, zinc phosphate and calcium molybdate. Using these substitutes may result in some reduction of performance.

Lead driers are not normally used in factory-applied coatings on metal finishes.

2. Appliances. In a broad sense, appliances may be considered articles of furniture and are treated as such in this document. Appliance finishes are extremely hard durable finishes, which may be either organic coatings or porcelain enamels. In general, organic coatings are lower in cost, easier to apply, require lower cure temperatures, have improved color reproducibility, and have better impact resistance and flexibility.

Appliance finishes include alkyds and modified epoxy ester primers and are topcoated with spot resistant alkyd-amine or acrylic enamels. Other systems also include epoxy-ether urea for interior cabinet shelves. Stoves and ranges are generally coated with porcelain enamels. White finishes for washing machines, light fixtures, and kitchen cabinets include alkydamine, styrenated alkyds, and melamine formaldehyde resins.

Regardless of the type of paint system used, the major lead problem occurs when colors such as yellows, golds, greens,

and some browns are formulated. To date, no really satisfactory substitute organic pigment has been developed to replace the lead chromates and molybdate oranges for color intensity. These coatings using ead pigments can contain up to 12 percent lead (based on dry weight). Lead driers are not normally used in appliance coatings.

3. <u>Toys</u>. Domestic toy manufacturers apparently are using paints with low lead levels (0.06 percent or less). Several of the major manufacturers of metal toys test each batch of coating received from their suppliers for lead content. Others depend on their coating suppliers for certification.

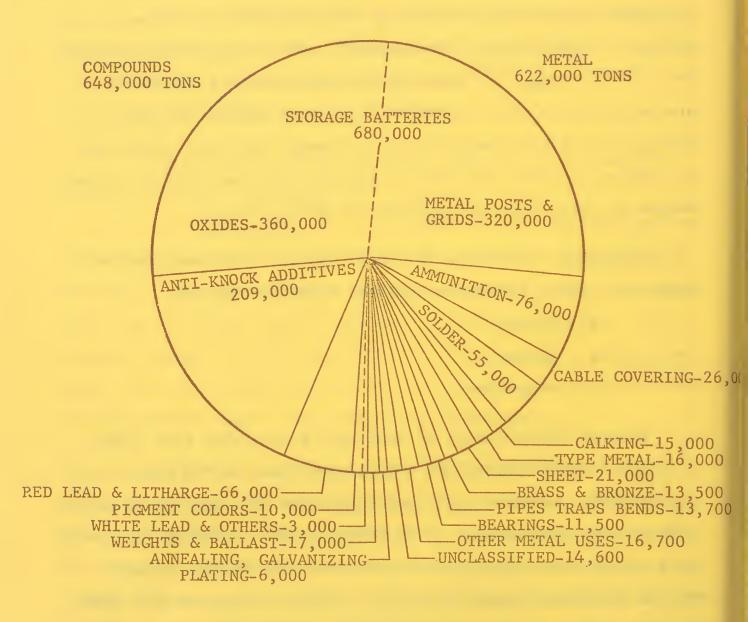
Typically, all of the coatings used are baked and most of them fall into the following general types of coatings:

- Alkyds
- Lacquers
- Polyesters

Foreign manufacturers of toys have stated that they comply with a voluntary standard of 0.25 percent lead in the paints they use on toys. Assuming that lead driers are not required in paints used for toy manufacture, it is estimated that imported toys could meet a lead-containing paint standard of 0.06 percent because

(a) no lead based pigments could be used if a 0.25 percent lead level could be met, and (b) it is unlikely that there is sufficient lead in the paint raw materials as a contaminant to generally reach 0.06 percent lead in the dried paint film.

UNITED STATES LEAD CONSUMPTION
BY PRODUCT - 1975
Total: 1,270,000 Short Tons



SOURCE: A. T. Kearney, Inc.

# C - GENERAL ECONOMIC BACKGROUND OF THE PAINT INDUSTRY

### INDUSTRY CHARACTERISTICS

The paint manufacturing industry consists of some 1,300-1,400 companies, a majority of which employ less than 20 people. These companies operate approximately 1,500 manufacturing plants in locations scattered throughout the country. Plants are typically located in urban areas in proximity to customers. Locational patterns are therefore directly related to population desities and growth levels.

Transportation economics play a major role in the relationship between plant location and product markets. The cost of transporting raw materials in bulk is considerably lower than the cost of transporting finished paint products. As a result, there is strong incentive to locate close to product customers, minimizing total transportation costs.

Several economic factors contribute to the numbers of small firms in the paint industry. As indicated above, there is a significant differential in transportation costs between shipment of raw material inputs and shipment of finished products. Capital requirements for entry are relatively limited. Equipment and space requirements are minimal in comparison with other manufacturing industries.

The preceding factors influence both the size and locational patterns characteristic of the paint manufacturing industry. Cost advantages in locating near customers are sufficient to encourage paint companies to decentralize their production operations. Scattered small-scale manufacturing operations are well-suited to this objective.

Recent years have witnessed the emergence of new raw materials and increasing complexity of paint technology. This has resulted in a trend toward increased scale of production in the paint industry. Although the incentives for small-scale production remain powerful, there has been an upward shift in the scale of production. The number of manufacturing establishments has declined since the early 1960's, a trend which is expected to continue into the late 1970's. In many cases, smaller companies have been acquired by larger companies, or have merged to form larger companies. Between 1969 and 1975, 61 such mergers or acquisitions took place. In the process, a number of older, smaller-scale plants have discontinued production. The number of plants in the industry dropped from about 1,800 plants in 1963 to approximately 1,600 plants in 1976.

Although the majority of companies in the paint industry are relatively small-scale operations, there is substantial concentration of production activity among a handful of larger companies. As shown in Table 1, the four largest companies in terms of sales accounted for almost one-fourth of total sales during 1972. Each

of these companies reported sales in excess of \$100 million.

The top 50 companies (or roughly 4 percent of the total companies) had almost two-thirds of the total industry value of shipments.

Excluding the top 36 companies, average sales for the remaining companies were in the neighborhood of \$600,000/year.

Table 1

Share of Value of Shipments of Paints and Allied Products Accounted for by the Largest Companies

	1972	1967
Total Value of Shipments (Million Dollars)	3,505.8	2,703.8
Percent of Total Value of Shipments Accounted for by:		
4 Largest Companies 8 Largest Companies 20 Largest Companies 50 Largest Companies	22 33 49 64	23 35 46 59

Source: 1972 Census of Manufactures, 1975.

A number of major non-paint companies operate paint production plants or hold controlling interests in paint companies. Although paint production represents a small part of their total operation, these companies are major participants in the paint industry itself.

Many of the large paint companies are involved in the production of raw material inputs-not only for their own use, but also for sale to other paint companies. Production at these levels provides an illustration of vertical integration of production activities.

The paint industry has experienced a steady growth in output and dollar sales during the past 10-15 years. Between 1958 and 1971, for example, the dollar value of paint sold increased at an average annual rate of 4.5 percent, and the quantity of paint sold increased at an average annual rate of 3.0 percent. During this same period, the Gross National Product increased at an average annual rate of 6.8 percent, while population increased at an average rate of 1.3 percent.

Two major product markets can be distinguished within the paint industry. These are the market for trade sales paints and the market for industrial finishes. Trade sales paints are sold in varying quantities, generally through wholesale-retail networks. Industrial finishes tend to be highly specialized and are usually sold to industries in large quantities for use in the manufacturing process. Most of the large paint companies and many of the smaller companies are involved in the production of both trade sales paints and industrial finishes.

The major distinction between product types in the paint industry is between solvent-thinned and water-thinned paints.

Other, more specialized product types are important only within the market for industrial finishes. Once the major product within the trade sales market, solvent-thinned paints have steadily lost market shares to the newer water-thinned paints.

Water-thinned paints now comprise over two-thirds of the total production of trade sales paints. The shift from solvent-thined

paints to water-thinned paints is expected to continue in the future. Most companies engaged in the production of trade sales paints produce both water-thinned and solvent-thinned paints, and are therefore able to shift production internally.

The market for industrial finishes has experienced a similar shift in product shares during recent years. Production in industrial finishes has consisted almost exclusively of solvent-thinned paints. Production is now shifting strongly toward water-thinned paints and newly developed paints such as high-solids and powder coatings. Although diminishing in importance, solvent-thinned paints are expected to retain a major share of this market, at least in the near future.

### INDUSTRY STATISTICS

In 1974, the paint industry, as defined by Standard Industrial Classification 2851, produced 932 million gallons of paint valued at \$3.7 billion. A total of \$1.9 billion was expended for materials, containers, and supplies. Expenditures on new plants, equipment, advertising, and other services totalled approximately \$103 million. The industry (figures actually cover only 90 percent of the industry) employed 66,000 -- 38,300 of which were production workers with 27,700 administrative, management, technical, clerical and sales personnel.

Production and value of paint sales in 1974 were distributed rather evenly between trade sales paints and industrial finishes.

Table 2

## U.S. Production and Value of Surface Coatings (1974)

Production (million gallons)	Trade Sales Industrial Finishes	475 457
	Total	932
Value of Shipments (million dollars)	Trade Sales Industrial Finishes	\$1,871 1,801
	Total	\$3,672

Source: Marketing Guide to the Paint Industry, 1975.

Each of the two major product markets (trade sales and industrial finishes) has exhibited significant shifts in market shares from solvent-thinned toward water-thinned paints. These trends are evident in the following tables.

Table 3

U.S. Production of Trade Sales Paints by Product Category, 1972 and 1974 (million gallons)

	Solvent-Thinned	Water-Thinned		
1972	211	199		
1974	130	280		

Sources: 1972 Census of Manufacturers and Marketing Guide to the Paint Industry, 1975.

Table 4

Projected Changes in Percentage of Industrial Finishes Market Held by Product Category

	Solvent-Thinned	Water-Thinned	
1972-1973	90 Percent	6 Percent	
1977-1980	53 Percent	30 Percent	

Source: Assessment of Industrial Hazardous Waste Practices: Paint and Allied Products Industry, 1975.

# D - HEALTH EFFECTS OF LEAD IN PAINT AND RISKS FROM CONSUMER PRODUCTS

This section describes the health effects of lead in paint; namely lead poisoning in children. This adverse effect on children can cause a range of disorders such as hyperactivity, slowed learning ability, withdrawal, blindness and even death. The seriousness of these adverse effects has been studied by the National Academy of Sciences. They conclude in their report to the Consumer Product Safety Commission under the Contract CPSC-C-75-0018 that the 0.5 percent lead level in paint is a (26) hazard to children. They recommend that the 0.06 percent lead level in paint be observed in final dried paint products and paints or coatings on infant toys and furniture.

Of special concern with regards to lead poisoning are children with pica. Pica, the repetitive ingestion of nonfood substances, occurs in 50 percent of children between the ages of one and three, and at this age lead is absorbed more rapidly than absorption of lead in adults.

The adverse health effects of lead poisoning show distinct physical symptoms and effects in children during the three stages of lead poisoning. The adverse health effects in the first stage are not clinically present but changes in the basic metabolism of the child do occur. During the second stage such symptoms such as loss of appetite, vomiting, apathy, drowsiness and inability to coordinate voluntary muscle movements occur. Such

adverse health effects as restlessness, short-attention span, easy distractability, hyperactivity, withdrawal, temper tantrums, fear, refusal to play and slowed learning ability occur. The adverse health effects of the third stage are permanent and include blindness, mental retardation, behavior disorders and death.

There are many controversies with regard to the safe lead level in paint. These pertain to the methods used to analytically determine safe levels such as the adequacy of animal studies, and the determination of Daily Permissible Intake. The National Academy of Sciences made its conclusions and recommendations based on the data and studies that were available (these studies are summarized in Appendix A). Their conclusions and recommendations are as follows:

- "1. Since the CPSC-supplied studies did not adequately simulate the conditions found in young children, particularly in relation to age and diet, we were unable, on the basis of these studies, to determine that 0.5 percent lead in paint is safe.
- evident when the blood level concentration exceeds 30 µg/dl, and since the most desirable means of controlling disease is prevention, we recommend that the total daily lead exposure, including exposure from food, ambient air and paint, for a one- to five-year old child not exceed levels sufficient to raise the blood lead concentration above 30 µg Pb/dl. In order to allow for variations among individuals, the mean blood lead concentration for groups should not

I-D-3

exceed 20 µg Pb/dl. Among two to three year old children an absorption of 4.5 µg/kg/day is apparently associated with a mean blood lead concentration of 20 µg/Pb/dl.

- 3. Since control of the lead paint hazard is difficult to accomplish once multiple layers have been applied in homes over two or three decades, and since control is more easily regulated at the time of manufacture, we recommend that a limit for the lead content of paints be set and enforced at the time of manufacture.
- 4. Since 0.5 percent lead in paint represents a hazard to a child with pica for paint, and since most currently available household paints contain 0.06 percent lead in paint, thus demonstrating that lead is not an essential ingredient for all paints, and since a reasonable allowance must be made for variations due to contamination of raw materials and detection limits and precision of analytical methods for analyzing the lead content of paints, we recommend that the deliberate addition of lead to paint for residential buildings or other sufaces accessible to young children be immediately discontinued and that a level not to exceed 0.06 percent lead in the final dried product be set for regulatory purposes. Since paints without lead additives may contain up to 0.03 percent lead, a level of 0.06 percent lead provides reasonable latitude for regulatory purposes.
- these recommendations, and since extensions may be sought to delay compliance, we recommend that variances be allowed only on

I-D-4

the basis of demonstrated economic hardship and that none be allowed to extend beyond five years. A time limit of five years will prevent accumulation of lead to dangerous levels from repeated applications.

- 6. Since most cases of serious childhood lead poisoning found today are clearly related to the ingestion of old lead paints, and since this hazard may be expected to exist in older homes for some time, we strongly recommend that research be conducted to determine methods for the removal of old lead paints, which will provide adequate safety for both the residents and workmen performing the renovation procedures.
- 7. Since the infant is most vulnerable to the effects of lead and since little is known about the relationship between lead dose and effect in the child from birth to one year of age, we recommend that the lead content of paints or coatings on infant toys and furniture should not exceed 0.06 percent lead and that food commonly fed to infants should contain the lowest practical level of lead as determined by FDA.
- 8. Since few studies in experimental animals have provided adequate designs to simulate the conditions found in a young child and since no research has been conducted on the relationship between lead dose and effect in the human infant less than 12 months of age, and since few studies in preschoolage children have provided adequate information on the dose-response relationship for lead in the one- to five-year-age group, we recommend that future research focus on these areas.

9. Lead continues to have diverse uses, the regulations of which falls under numerous different governmental agencies depending on its use. We recommend that these various agencies coordinate their research efforts in relation to the dangers of lead and that they coordinate their policies regarding the limits for human exposure from industrial sources, consumer products, air, food and water so that an individual's total exposure from various sources falls within a range which allows a margin of safety for those individuals in the population who are affected by relatively low doses."



### II - DESCRIPTION OF REGULATORY ALTERNATIVES

#### A - INTRODUCTION

Under the CPSA, the CPSC has proposed to ban certain consumer products consisting of:

- Lead-containing paint and similar surface coating materials.
- 2. Toys and other articles intended for use by children bearing lead containing paint, and
- 3. Articles of furniture bearing lead-containing paint. In addition, on December 16, 1976, the CPSC decided that it is unable to determine that a level of lead in paint over 0.06 percent but not over 0.5 percent is safe. As a result, on June 23, 1977, the definition of lead based paint under the LBPPPA will be paint containing more than 0.06 percent lead.

Thus, the Consumer Product Safety Commission intends to choose some course of regulatory action by July 14, 1977. In taking such action, the Commission must make decisions on each of these four basic variables:

- 1. Issuance of final regulations
- 2. Maximum level of lead allowable
- 3. Scope of coverage
- 4. Effective date of the regulations.

These variables are not regulatory alternatives themselves, although a regulatory alternative is defined by taking some action on all four of the variables. The combined action on the variables

thus becomes a regulatory alternative by a "building block approach."

The principal advantage of structuring the alternatives in this way is that environmental impacts may be determined separately for each variable, depending upon the course of action taken regarding that variable. Then, by formulating alternatives from the four variables using the "building block approach," the environmental impacts associated with each alternative are simply all the environmental impacts determined for each of the four variables as specified. Each of the variables is discussed later in this section.

There are five basic alternatives which the Commission may consider, although by making slight modifications to one or more variables, a large number of alternative permutations could be defined. However, all these permutations will be similar to at least one of the basic alternatives. For the purpose of assessing environmental impacts, only the five basic alternatives are considered. These alternatives are presented below and are summarized in Table 5. The environmental impacts associated with the five alternatives are presented in Section III.

There are five basic alternatives that will be formulated for illustrative purposes. These alternatives will represent feasible scenarios. In Section III of this document, the environmental impacts associated with the five alternatives as well as each of the four variables will be documented.

#### B - DISCUSSION OF VARIABLES

### ISSUANCE OF FINAL REGULATIONS

CPSC must decide whether or not to issue the regulations proposed under the CPSA on August 10, 1976. Shall lead-containing paint or other surface coatings containing lead above the LBPPPA level be banned under the CPSA? Shall toys and other articles intended for children containing lead based paint be banned under CPSA? Shall articles of furniture bearing lead based paint be based paint be banned under CPSA?

Another consideration is whether or not to revoke existing regulations under the FHSA related to lead-containing paint.

# MAXIMUM LEVEL OF LEAD ALLOWANCE

Will the maximum level of lead allowable in paint be set at 0.06 percent (the level at which the definition of lead based paint will be established as of June 23, 1977) or 0.5 percent? Will an intermediate level be possible? For example, the National Paint and Coatings Association has recommended a lead level of 0.2 percent. The Toy Manufacturer's Association has suggested 0.25 percent as a maximum level.

It has been suggested that short-term interim regulations could be established between 0.06 and 0.5 percent. This interim regulation could be in effect for 1-3 years while paint manufacturers continue to develop reformulations to allow the elimination of lead compounds from trade sale paints as well as from

industrial coatings used to paint toys, furniture and related items without adversely affecting paint performance and appeal.

After the prescribed 1-3 year period, the lead based paint standard would be lowered to 0.06 percent.

#### SCOPE OF COVERAGE

It is intended that the scope of coverage will include trade sales paints and those coatings used on residential, recreational, and school structures as well as toys and other articles intended for use by children and articles of furniture.

Will all types of surface coatings be covered by the regulation, or will certain classes of paints be exempted such as the seven types of coatings proposed for exemption (which are mainly used in commercial and industrial applications) under the FHSA in 1972 by the NPCA? Artists' paints are already exempted under the FHSA, and catalytic coatings for use on radio controlled powered model aircraft have recently been requested for exemption.

In addition, certain articles intended for use by consumers and which are coated with lead containing paints could be exempted. Careful consideration must be exercised by the Commission in (a) determining what articles are included in the definition of "furniture", (b) ascertaining what articles, defined as furniture, should be exempted, and (c) determining what articles are not included within the strict definition of "furniture" as it is applied for the purposes of this regulation. The following are examples of articles which may or may not be defined as "furniture":

- Household appliances
- Metal window dressing (venetian blinds)
- Lawn furniture
  - Artwork and decorative objects not intended to be functional
  - Lamps and lighting equipment

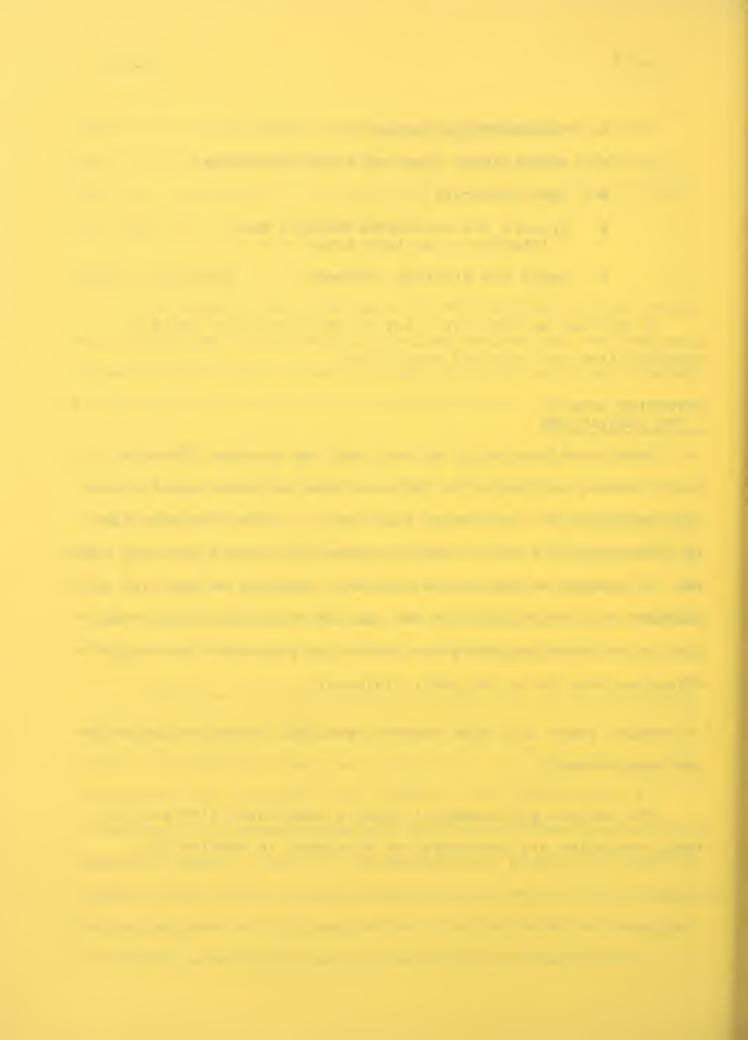
If defined as furniture, any of these articles could be exempted from the proposed regulation.

# EFFECTIVE DATE OF THE REGULATIONS

Under section 9(d)(1) of the CPSA, the maximum effective date for a banning regulation is 180 days from the date issued unless the Commission for good cause finds that a later effective date is in the public interest and publishes its reasons for such finding. A minimum 30 day period following issuance of the rule is mandated for effective dates for banning regulations under the CPSA unless the Commission for good cause finds that an earlier effective date is in the public interest.

Thus, there is a wide range of possible effective dates for the regulations.

The various environmental impacts associated with each of these variables are presented and discussed in Section III.



#### C - DISCUSSION OF BASIC ALTERNATIVES

Five basic alternatives are described which illustrate the range of regulatory actions that the Commission may take. The first alternative is "status quo"; that is, the Commission will not take regulatory action pursuant to its August 10, 1976 proposals in the <a href="#Federal Register">Federal Register</a>. The other four alternatives consider differences in the regulatory actions that may be taken. Table 5 summarizes and compares these alternatives.

#### ALTERNATIVE NO. 1

This can be termed the "status quo" alternative in that the regulation for lead-containing paint and certain other consumer products bearing such paint will continue to be regulated under the Federal Hazardous Substances Act (FHSA). The FHSA regulations (16 CFR 1500.17(a)(6)) already ban paint and other similar surface coating material for household use containing more than 0.5 percent of lead (calculated as lead metal in the total nonvolatile content of the paint, or the equivalent measure of lead in the dried film of paint already applied). These regulations also ban toys or other articles for children bearing such paint and similar coating material. Future regulations could be issued to alter the allowable lead level.

This alternative considers that all types of trade sale paints intended or packaged for household use are covered under the regulation. Exemptions, such as those requested by the National Paint and Coatings Association (NPCA) in 1972 and

in 1976 may be allowed at some future time. Factors in granting the exemptions will include the likelihood of accessibility of surfaces to children, chipping and flaking characteristics, and the need for the coating to contain lead.

These conditions already prevail, so no effective date is applicable.

### ALTERNATIVE NO. 2

The Consumer Product Safety Act (CPSA) will be used to regulate lead-containing paint under this alternative, and the provisions of the FHSA which govern lead-containing paint will be superseded or revoked. Under the CPSA proposal, the present FHSA limit of lead in paint of 0.5 percent will be lowered to 0.06 percent. Unlike the FHSA regulation, regulation under the CPSA proposal applies to articles of furniture, as well as to toys and other articles intended for use by children which are coated with lead based paint. This alternative considers that all types of trade sales paints intended or packaged for consumer use are covered under the regulation. Specific exemptions for special types of paints or household articles which are covered by the CPSA regulations are denied at this time in this particular alternative.

The earliest effective date for this regulation would be August 15, 1977.

### ALTERNATIVE NO. 3

In this alternative, lead in paint will be regulated under the CPSA. The definition of a lead based paint will be set as any paint containing more than 0.06 percent lead.

the following types of coatings will be specifically excluded from the banned hazardous substances regulation by the Commission:

- -- Artists' paints (already exempt under FHSA).
- -- Automotive, agricultural, and industrial equipment refinish coatings.
- -- Industrial (and commercial building)
  maintenance coatings, including traffic
  and safety marking coatings.
- -- Graphic art coatings (products marketed solely for application on billboards, road signs, and similar uses and for identification marking in industrial buildings).
- Touchup coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicles, and appliances.
- -- Exterior marine coatings for small craft application.
- -- Exterior rubber-based roof coatings.
- -- Exterior primer coatings for wood siding containing extractives (products marketed solely for application on redwood and cedar).
- -- Catalytic coatings manufactured for use on radio-controlled powered model aircraft.

The amount of lead in some of these coatings could reach 50 percent or more by weight in the dried film. Warning labels, as described in the Section I discussion of legislative background, will be required on containers for any of these types of paints.

Special care must be exercised in regulating or exempting the specialized coatings described above. The Commission can only regulate products, and cannot regulate the end uses of any products. Thus, any coating that is exempted must be a truly specialized product, and not merely a general use product which is labelled, among other uses, as a substitute for a given exempted specialty coating.

The use of any lead based paint will be prohibited for application to toys, articles intended for use by children, and furniture. In this alternative, the following articles of household goods which may be coated with a lead-containing paint are specifically exempted from the regulation.

- 1. Metal furniture
  - 2. Metal window dressings (venetian blinds)
  - 3. Household appliances

The earliest that this regulation can take effect is August 15, 1977.

II-A-10

### ALTERNATIVE NO. 4

This alternative is identical to Alternative No. 3 except that the regulation issued under the CPSA will take effect on July 15, 1978 - not in 1977. This presumes that the Commission determines just cause for extending the effective date of the regulation.

The definition of lead based paint will be established, under the LBPPPA, as any paint containing more than 0.06 percent lead by weight in the dried film. The nine types of paints and three types of furniture listed in Alternative No. 3 are also exempted in this alternative.

### ALTERNATIVE NO. 5

The regulation of lead based paint and the prohibition of uses of such paints on toys, articles intended for use by children, and furniture is covered under the CPSA in this alternative.

The nine paint classes and three types of furniture listed in Alternative No. 3 are exempted from this regulation.

A final level for lead in paint is established as 0.06 percent. However, this level is achieved in two stages. The first stage calls for lowering the allowable lead level to 0.25 percent on August 15, 1977. This level will be maintained for two years - mainly to allow the paint industry and its suppliers to improve drier formulations which will substitute for lead. On July 15, 1979, the allowable level of lead in paint will be reduced to a final level of 0.06 percent.

Table 5

Basic Regulatory Alternatives

	5	Regulate Under CPSA	0.25-0.06	Same as No. 3	Same as No. 3	August 15, 1977 and July 15, 1979	II-A-11
	4	Regulate Under CPSA	90.0	Same as No. 3	Same as No. 3	July 15, 1978	
Alternative No.	3	Regulate Under CPSA	90.0	Same as No. 2	NPCA proposed exemptions granted. Metal furniture, metal window dressing, and appliances also exempted.	August 15, 1977	
	2	Regulate Under CPSA	90°0	Same as No. 1 plus furniture.	NPCA proposed exemptions denied.	August 15, 1977	
	1	Remain Under FHSA (Status Quo)	0.5	All types of trade sale	<b>E</b> 0 E C	Already in effect.	
	Variable	Issuance of Final Regulation	Maximum Lead Level, Percent	Scope of Coverage		Effective Date of Regulation	

#### III - ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES

#### A - INTRODUCTION

This section presents discussions of the beneficial and adverse impacts associated with each alternative that was formulated in Section II. The impacts are generally classified in terms of health effects, environmental factors, and economic factors and are applied to the four variables discussed in the previous section. Each impact is categorized as major, moderate, or slight.

In general, the most significant beneficial impact associated with implementing the August 10, 1976 proposal in some form is that children will be exposed to a lower level of lead in paints and painted products that are found in their environment. Small adverse impacts will be incurred by the paint industry in technological and economic terms.

# B - ALTERNATIVE NO. 1

Alternative No. 1 corresponds to the existing situation.

Lead in paint would continue to be regulated under the Federal Hazardous Substances Act (FHSA). The maximum allowable level of lead would remain at 0.5%. Trade sales paints, toys, and articles intended for use by children are specifically covered by existing regulations. Artist's paints are exempted from regulation, and the seven special purpose coatings proposed for exemption by the National Paint and Coatings Association

(NPCA) are effectively exempted pending resolution of their regulatory status.

Since this is the baseline or "status quo" alternative, no changes are contemplated and no environmental impacts, in the traditional sense, can be assessed. However, some of the problems associated with maintaining the status quo are:

- 1. The new definition of a lead based paint would not be considered in the regulation.
- 2. Children would be exposed to levels of lead in paint which are higher than technologically achievable levels.
- 3. The possibility exists for having regulations on paints and painted products which duplicate or conflict with each other.
  - 4. Furniture would not be covered under the regulation.

Impacts associated with the remaining alternatives will be determined by comparison with the "status quo" alternative.

#### C - ALTERNATIVE NO. 2

Alternatives No. 2 through 5 involve the regulation of lead in paint under the Consumer Product Safety Act (CPSA). Alternative No. 2 is characterized by a maximum allowable level of lead in paint of 0.06%. Products subject to regulation include trade sales paints, toys and other articles intended for use by children, and furniture. NPCA - proposed exemptions are denied under this alternative. The seven special purpose coatings involved would thus be subject to regulation. The effective date of regulation would be August 15, 1977.

## ISSUANCE OF FINAL REGULATIONS

A moderately beneficial impact results from issuing regulations under CPSA. This impact will be felt primarily by young children, especially children with pica. As noted in Section I, issuing regulations under CPSA will permit consolidation of the CPSA proceeding with the LBPPPA determination and thus facilitate greater public participation and a more expeditious resolution of the issues.

## SAFE LEAD LEVEL

## (a) Health Effects

A moderate beneficial health impact of 0.06% lead in paint is that children will be exposed in a lesser degree of lead in paint than at the 0.5% lead in paint level. The National Academy of Sciences recommends that the level of lead in paint not exceed 0.06% for residential paint products and for paints or coatings on infant toys and furniture. It should be noted that the 0.06% lead level has not been established as a safe level by the NAS but rather as the lowest level estimated to be currently achievable by the paint and coatings manufacturing industry.

The present level of knowledge pertaining to lead poisoning does not appear to allow any estimation of the number of cases of lead poisoning in children which may be avoided because of this regulation or of the possibility that some lead poisoning cases will be less severe.

# (b) Environmental Factors

- 1. A slight beneficial environmental impact in lowering the allowable level of lead in paint to 0.06% is that the amount of lead in the process waste from paint manufacturing will be reduced. Most of the wastes from paint manufacturing are collected and disposed of in sanitary landfills (a generally undesirable disposal method for this waste). About 242,000 tons per year of wastes generated in the manufacture of trade-sales products are handled in this manner, and these wastes contain roughly 0.06 tons per year of lead. The regulation should cause the quantity of lead in trade-sales paint processing wastes to decrease by nearly 100 percent. An undetermined amount of lead is discharged from paint manufacturing operations via air emissions emissions and process wastewater, but the overall quantities of lead which they contain are expected to be significantly less than the amount of lead deposited in landfills.
- 2. Somewhat offsetting the previous impact is a slight adverse impact. In substituting other drier compounds for lead driers, which may contain zinc, zirconium, manganese, or cobalt, additional quantities of these toxic heavy metals will be discharged to the environment. These non-lead driers are already in use, often in combination with lead. The additional quantities of these other metals discharged above current levels cannot be accurately predicted without knowing the quantities of each metal required in reformulating drier combinations to eliminate lead.

However, an engineering estimate is offered that an additional one ton per year of substitute metals (including zinc, zirconium, and cobalt) will be discharged to the environment - mainly to land disposal operations. The substitution of other metals for lead driers will not significantly alter process waste disposal practices or costs.

3. A slight adverse impact will result from the need for some additional paint manufacturing equipment cleaning in paint plants which manufacture various coatings, some of which may be exempt and others which may be non-exempt from the regulations. Additional solvent may be required, above current levels, to clean equipment after the production of a batch of paint not covered by the regulations and prior to making a batch which is covered. Scofield (32) estimates that in such plants, the volume of equipment cleaning wastes should increase by roughly 10%. If it is assumed that 50% of the paint plants in the U.S. will incur such additional cleaning requirements, then about 4,000 tons/year of additional cleaning waste will be generated by the industry. Half of this will be reclaimed for further use and half will be disposed of in sanitary landfills. Approximately one ton per year of lead will be released to the environment in the United States due to the extra cleaning required. The cost to the industry for disposing and reclaiming this extra cleaning waste is approximately \$200,000/year.

## EFFECTIVE DATE OF REGULATION

Regulations governing Alternative No. 2 would become effective after August 15, 1977, consistent with the date of application of the new definition of lead based paint under the LBPPPA amendments.

#### D - ALTERNATIVE NO. 3

Alternative No. 3 is identical to Alternative No. 2, with the exception that the proposed exemptions for seven special purpose coatings are granted here. These products have not been subject to regulation, pending formal dispensation. Granting the exemptions would not engender any economic consequences relative to existing conditions. In addition, the adverse impacts identified under the "Economic Effects of Regulation" section which follows these alternatives would be negated for the speciality coatings exempted.

The environmental impacts associated with (1) promulgating regulations under CPSA, (2) establishing the "safe" level of lead in paint at 0.06 percent, and (3) providing an effective date for the regulations as August 15, 1977, are discussed in Alternative No. 2 and will not be repeated here.

A slight adverse environmental impact results due to the availability of the exempted paints in that children may, in extreme cases, have access to chips and peelings which may contribute to lead poisoning if ingested.

## E - ALTERNATIVE NO. 4

Alternative No. 4 is identical to Alternative No. 3, with the exception that the effective date of regulation is postponed one year until July 15, 1978. The environmental impacts of the factors common with Alternatives Nos. 3 and 4 are not repeated here. The effect of postponement would be to provide additional time for the paint industry to develop alternatives to lead driers and pigments in uses for which acceptable alternatives are not currently available. Although past efforts have yielded some encouraging results, the certainty of impending changes in the regulations may encourage a more vigorous effort, particularly for refinishing coatings commonly used by consumers. Adverse economic impacts previously delineated would be shifted one year forward, moderately benefiting the industry in this respect. Expanding the time for implementation of testing and housekeeping procedures (and additional research) would provide further opportunity to moderate associated adverse effects.

### F - ALTERNATIVE NO. 5

Alternative No. 5 involves final regulation under CPSA and scope of coverage consistent with Alternatives No. 3 and No. 4. It differs from the preceding alternatives in providing a staged reduction in the maximum allowable lead level from 0.5% to 0.25%, then to 0.06%. The effective date of regulation corresponding to the interim level is August 15, 1977. Final regulations become effective July 15, 1979.

A maximum allowable level of lead in paint established at 0.25% would preclude the addition of lead, either as pigment or (in most cases) driers. Impacts associated with these uses would remain as described. But a maximum level of 0.25 provides much greater allowance for accidental contamination of raw materials or processing equipment. While still necessitating the implementation of careful housekeeping measures and certification of raw materials suppliers, testing of finished products could adequately be performed on a more infrequent basis. As a result, the most significant economic consequences associated with reduction to the 0.06% level would be moderated substantially, at least for a two-year period.

The two-year period of transition would facilitate a more gradual implementation of testing and housekeeping programs, and provide more time for reformulation research.

# ECONOMIC EFFECTS OF THE REGULATION

The reduction of the permissible level of lead in paint to the 0.06 percent level under the Consumer Product Safety Act (CPSA) will affect paint manufacturers, raw materials suppliers, professional and non-professional painters and manufacturers of furniture and children's articles. For those producers of paint which are already subject to the regulation under the Federal Hazardous Substances Act (FHSA), the effects involve only a change to non-lead driers since lead pigments are precluded from practical use under that law's 0.5 percent lead restriction. The manufacturers of some

painted furniture who were not affected by the 0.5 percent limit under the FHSA may be affected under CPSA if they use lead pigments or driers. Producers of children's articles who were subject to the FHSA limit will have to ensure that the paint they use conforms to the 0.06 percent level.

The paints for which exemptions have been requested have not been subject to the 0.5 percent restriction. Since the exemptions will be considered individually, the possible effect of these regulations on each one will be examined in a separate section rather than here.

# (a) Industry Impacts

1. Water and Oil Based Paint. The reduction of lead to 0.06 percent level in paint would not affect trade sale water-based or latex paints directly for reasons already mentioned, however, analysis and certification of lead content will affect paint producers. As shown in Table 6, the sale of water base paints exceeds sales of oil based paints. The trend toward increased use of water based paints may be accelerated somewhat by the proposed regulations.

The reduction of lead to the 0.06 percent level would affect most of the solvent based paints. Currently, lead driers, up to 0.5 percent by weight, are used in many trade sales solvent-based paints, and the proposed limitation to 0.06 percent would eliminate their use in such paints.

Table 6

# Sales Coatings--1974 Trade U.S. Production and Value of

Type of Coating		Solvent Base	Water Base	Total
Interior (a)	Value	\$330 million	\$590 million	\$920 million
	Quantity	75 million gallons	190 million gallons	265 million gallons
Exterior (b)	Value	\$335 million	\$330 million	\$665 million
	Quantity	55 million gallons	90 million gallons	145 million gallons
Miscellaneous (c)	Value Quantity			\$286 million 65 million gallons
	Value	\$665 million	\$920 million	\$1,871 million
	Quantity	130 million gallons	280 million gallons	475 million gallons
Solvent Base	מאטן ט	semialoss enamels. flat w	all paint varnish prim	(a) Solvent Base: Gloss and semigloss enamels. flat wall paint, warnish, primers, sealers, and others.

Gloss and semigloss enamels, ilat wall paint, varnish, primers, sealers, and others. (\$370 million/125 million gallons), semigloss, enamels, and others. Flat wall solvent Base: Water Base: (a)

primer/sealers, paint, trim and trellis enamels, porch and deck paints, others. House and Solvent Base: (q)

paint and others.

House

Water Base:

(c) Auto refinishing, traffic paint, and others.

Fairfield, N.J., 1975. Paint Industry, 1975, C.H. Kline and Co, Inc., to the The Kline Guide Source:

2. <u>Paint Formulations</u>. An effect of the regulations will be to cause the reformulation of trade sales paint which now incorporates lead driers.

The leading substitute for lead as a drier is zirconium which is now used by many manufacturers of solvent based paint.

When converted to naphtenates, zirconium is generally a satisfactory drier. However, zirconium driers are apparently more sensitive to temperature and humidity conditions than lead driers and this may limit the application of such paint under certain climatic conditions of low temperature and high humidity where lead driers would have performed satisfactorily. There is on-going research to find other suitable lead free driers.

A major manufacturer of driers has indicated that the cost of subsituting zirconium for lead driers is about \$0.02 per gallon. If it assumed that all of the estimated 130 million gallons of solvent based interior and exterior paints and enamels produced in 1974 were to use zirconium driers in place of lead driers, the cost would be \$2.6 million per year. However, if the CPSC survey of paint is used as a basis for estimating, the volume of solvent paints containing lead is approximately 42 million gallons. Then the more reasonable cost of lead replacement with zirconium would be \$0.83 million per year. Even this lower figure may be an exaggeration because some of the 42 million gallons probably does not presently contain lead driers and some will not be intended for use in households.

Other compounds of manganese, cobalt, calcium, and selenium are now being used in paint in combination with lead and zirconium, and there is no expected increase in demand for these compounds.

There will be some increased costs associated with the reformulation of paints which now contain lead driers. The increased costs of reformulation are estimated at about \$1.5 million as a one time cost.

As noted previously, many paint companies make both trade sales and industrial paints in the same plant and in many instances in the same equipment. This practice raises the possibility that a batch of paint intended to be lead-free can become accidentally contaminated by the residue from a prior batch of industrial paint containing a high level of lead. A few companies are disturbed by this possibility, but most feel it is negligible. Through necessity, the industry is thoroughly indoctrinated to cleaning its manufacturing equipment after each batch is completed.

More likely, but still remote, is the possibility that lead pigments intended for industrial use could accidentally be added to trade sales paints. Such occurrence would, of course, be detected if all batches were required to be analyzed for lead prior to sales to a customer.

A minor adverse impact on the paint industry involves analytical testing for lead. Testing requirements may not be

specified by regulation, but establishing a maximum lead level of 0.06 percent effectively imposes requirements upon manufacturers to monitor output adequately to assure compliance of all regulated products. At the 0.06 percent level, the permissable amount is sufficiently small that extensive testing may be required to assure compliance.

The most accurate method for measuring low concentrations of lead in paint involves atomic absorption spectrometry such as described in ASTM Standard Method D 3335-74. Manufacturers would have two basic options in testing their output. They could either invest in the equipment and personnel necessary to perform tests in-house, or they could send samples of output to outside laboratories for testing. Independent labs are generally located in urban areas, coinciding with the distribution of paint plants. The costs associated with these two options are summarized in Table 7. Annual costs were calculated for worst-case conditions, in which the average paint manufacturer, producing approximately five batches per day, tests every bath to help assure compliance.

The average manufacturing firm (less than 20 employees) is assumed to produce batches of 300-400 gallons, depending upon product lines and product mix. Since fixed costs comprise the predominant share of total in-house analytical costs, average costs per sample are considerably lower for large manufacturers. A company which requires two or three samples per hour, rather than five samples per day, would experience average costs of less

## Table 7

# Estimated Average Cost of Atomic Absorption Spectrometry Analysis

## Annual Fixed Costs

Personnel	\$18,000
Overhead (0.92 x Personnel Cost)	16,500
Instrument Cost (\$8,000 minimum cost depreciated over five years)	1,600
Lab Provisions (balance, furnace, crucibles, volumetric flasks, miscellaneous glassware)	5,000
Total Fixed Costs	41,100
Annual Variable Costs  Estimated Expendables (reagents, power, etc. = \$0.33 per sample,	
five samples/day, 1,250 samples per year)	400
Total Annual Costs	\$41,500
Average Cost per Sample	\$33
Outside Laboratory Cost per Sample	\$10-40

Sources: Battelle Institute and A. T. Kearney, Inc. estimates.

than \$10 per sample. Investment in test equipment would be costeffective for manufacturers with such sampling requirements.

A total of 475 million gallons of trade sales paints was produced in 1974. The bulk of production of the large companies is produced in 2,000 gallon sized batches. On this basis the 37 producers of about 75 percent of all production, or 356 million gallons, will have 180,000 batches to test and at \$10 per batch the cost would be \$1.80 million. The remaining 120 million gallons produced in 300-400 gallon batches will result in 300-400 thousand batches and at \$25 per batch will cost \$7.5-10.0 million. Therefore, the total estimated costs for testing would range between \$9 and \$12 million per year. Actual costs incurred by the industry to achieve satisfactory quality control in monitoring lead contamination are likely to be considerably lower because it is expected that firms will only test a fraction of their batches. Some testing already is being done. Taking these factors into account, it is estimated that testing would impose additional industry-wide costs in the \$5-8 million per year range.

Additional costs associated with the need for product testing could result from delays in the production process while tests are completed. Eight hours are generally required for completion of atomic absorption spectrometry analyses. The manufacturer could either invest in additional equipment or perhaps suffer some reduction in effective production.

More stringent housekeeping standards and certification of raw materials suppliers will be necessary to minimize potential sources of lead contamination. This is particularly true for companies manufacturing both nonregulated and regulated products. Given the limited margin for error, investment in additional equipment and improved quality control procedures may be necessary in some cases to achieve desired lead levels in the production process.

It is estimated that actual costs to the industry of testing, housekeeping, and quality control will be less than \$10 million per year.

# (b) Specific Product Groups

l. Household Furniture. Household furniture which may be affected by the lead in paint regulation includes wood and metal furniture used in such places as living rooms, kitchens, breakfast rooms and dens, bedrooms, sunrooms, halls, libraries, recreation rooms, workshops, porches, lawns, and patios. Many diverse furniture items are included such as: chairs, tables, desks, credenzas, book cases and shelves, bars, magazine racks, stands of all types, benches, stools, buffets and servers, beds, dressers, vanities, headboards, bed rails, wardrobes, chests, cabinets, play yards, and playpens, rockers, gliders, swings, screens and dividers, couches, sofas, settees, high chairs, and other children's furniture including cribs and cradles, and television and radio cabinets.

In 1972, the value of shipments of items of furniture such as those named was as follows: wood household furniture \$2,716 million; metal household furniture \$859 million, wood

TV and radio cabinets \$293 million; and \$190 million for other household furniture made of plastic, reed and rattan. Not included in the above are some \$2 billion worth of upholstered furniture, and \$300 million in convertible sofas, chair beds and studio couches. Many of these items will probably not be affected by lead in paint regulations.

The manufacturers of metal furniture may presently be using some lead pigments in order to obtain certain colors. If they must shift to organic pigments, then color matching of new with older furniture may not be possible. Any furniture cost increases which might result from the use of the somewhat more expensive organic pigments are expected to be small.

2. Toys and Other Children's Articles. Toy manufacturers are presently complying with the 0.5 percent lead limit, and it is believed from statements made by several metal toy manufacturers that the majority of surface coatings on toy surfaces contain less than 0.06 percent lead. Several major toy manufacturers require certification of lead content from their paint suppliers. The major concern is that lead contamination may result in levels beyond the allowable limit, and that measures to control the lead content will be time consuming and costly. A rough estimate of retail sales of toys and other children's articles amounts to \$4 billion for 1976. Of this total, about 6 percent were exported. Imports as

a percentage of domestic consumption are estimated at 15 percent. Foreign toy manufacturers presently use a voluntary standard which permits up to 0.25 percent lead in paint. The number of foreign toys imported into the U.S. with painted surfaces which exceed the 0.06 percent lead level and the number of toys coated with up to 0.25 percent lead is not known. However, the effects on foreign toy manufacturers in switching to paints with no more than 0.06 percent lead are not expected to be large.

A list of 43 categories which may help define the scope of the term "toys and other articles intended for use of children" is provided in Figure 1. The range of articles which may be affected by these regulations is very wide.

#### FIGURE 1 CATEGORIES OF TOYS AND OTHER CHILDREN'S ARTICLES

#### Category No. 1 Fashion dolls 2 Other dolls (including stuffed dolls and ventriloquist dummies) 3 Stuffed animals and other stuffed toys 4 Doll clothes and accessories 5 Doll carriages and carts 6 Doll houses and furniture 7 Board games 8 Action games 9 Other games and puzzles (excluding educationa items) 10 Educational toys and games (mechanical) 11 Educational toys and games (nonmechanical) 12 Children's books 13 Toy trains and equipment Vehicular racing sets 14 15 Powered toys 16 Nonpowered transportation toys (nonriding) 17 Structural kits 18 Model construction kits Handicraft and hobby kits 19 20 Scientific toys 21 Toy guns, rifles, and other play-war items 22 Minature figures and scenes 23 Infant care items Infant and preschool toys 24 Baby carriages, strollers, and walkers 25 26 Children's simulated transportation riding toys (pedal operated) 27 Velocipedes (3-whelled) and tricycles 28 Other children's riding toys 29 Housekeeping toys 30 Personal care toys 31 Work-o nneted toys Musical toys and toy musical instruments 32 33 Costumes and disguises 34 Party favors 35 Novelty toys 36 Palyground equipment 37 Gymnasium, physical fitness, and exercising equipment Other sports, camping and athletic equipment 38 39 Children's furniture Decorations and accessories for children's roon and bathroom 40 41 Children's and infant's clothing and bedding 42 Children's accessories

Source: Interim Report on Preliminary Assessment of Economic Impacts of Proposed Sharp Points and Sharp Edge Standards for Toys and Other Children's Articles. Retail Store Survey for BEA by Battelle Laboratories, 12/4/75

43

School supplies

## (c) Utility

Several industry sources have stated that the drying time of paint which uses zirconium drier is increased in conditions of low temperature and high humidity over that of paints which use lead driers. One source, a major supplier of driers, says that zirconium driers will not perform satisfactorily under 50 F and 70 percent or more relative humidity but lead driers allow satisfactory drying at 40 F.

The painting industry has always been plagued by the vagaries of the weather and outdoor painting is not normally done during periods of precipitation, freezing temperatures and high winds. If only non-lead driers are used in oil based paints, their sensitivity to climatic conditions would then approximate that of water based paint and the temperature and humidity range of application would be narrowed. These circumstances will adversely affect the construction industry, in some areas, especially the Northwest and Northeast, to some extent, particularly the smaller operations with limited flexibility for staggering production. In addition, the consumer use of coatings for exterior painting in these areas will be adversely affected.

Should the trend away from use of solvent-thinned paints to water-thinned coatings continue, manufacturers will be substituting mercury-containing paints for ones that contain lead. Mercury compounds, particularly phenyl mercuric acetate (PMA) are used in water-thinned paints as preservatives and fungicides. The

Environmental Protection Agency forbids the use of mercury in solvent based paint.

Without preservatives, many of these paints will decay in the can. Water-thinned paints are also susceptible, after application, to an assortment of plant organisms, particularly fungi. Mercury is normally used as a biocide at less than 0.1 percent of the total paint solids. Approximately 880,000 pounds of PMA were used in paints in 1972.

However, non-mercury containing compounds are being used as fungicides in paints. A recent study by National Bureau of Standards indicates that some of these chemical compounds are at least as effective as mercury when used as paint fungicides.

It appears unlikely that there will be increased usage of mercury by the paint industry as shifts to production of water based paints occur.

## (d) Effective Date

Various effective dates for the regulation are possible under Sec. 9(d)(1) of the CPSA: these range from 30 days after promulgation to 180 days (the minimum and maximum allowable unless for "good cause shown"). Other periods of as long as two years have (33) been proposed in the Draft Environmental Impact Statement and by industry.

Selection of an effective date should take into account the time required for reformulation and development of quality control programs, certification plans, and testing arrangements.

The 180 day effective date which is suggested by the staff would allow an adequate but not excessive period of adjustment for both the manufacturers and users of paint. The paint industry has had adequate notice of the impending regulations. The case for further delay has not been convincingly demonstrated.

# REQUESTS FOR EXEMPTIONS

The National Paint and Coatings Association (NEPA), representing their members, has asked the Commission for an exemption for eight types of paints. The stated bases for seeking exemptions for these paints are several: lack of satisfactory substitute paints, the contention that some of these paints are industrial finishes and are available to the public in limited ways, and that potential injury from the lead in these paints is only likely to occur through gross misuse. The eight types of paints are:

- 1. Refinish coatings for automobiles and machinery,
- Industrial maintenance paints, including traffic and safety marking paints,
- 3. Graphic arts paints,
- 4. Touch-up paints,
- Exterior marine paints for small craft,

- 6. Exterior rubber based roof coatings,
  - 7. Exterior primer paints for wood sidings, and
  - 8. Radio controlled model aircraft paints.

Some of the above paints, such as refinish and touch-up paints and marine paints are sold as both trade sale and industrial finishes.

All of these paints are available to consumers at retail and wholesale outlets, but some may not be considered household paints because of their limited use by consumers and high prices.

Each of the eight types of paint is discussed separately below.

# (a) Refinish Coatings

1. <u>Automotive</u>. Refinish coatings are generally supplied to automotive refinishes in bulk form or in containers (including aerosols), for sales to auto supply houses, repair shops and automobile dealers. They are of three types: (1) heat-convertible acrylic enamel, (2) acrylic lacquer; and (3) alkyds. The first two types do not use lead driers, the alkyds, however, use lead driers up to .2 percent.

In order to duplicate identical shades and tints of some types of colors such as yellows and oranges, the refinish paints formulas must contain the same amount of lead chrome pigments which were used on the original automobile finish.

About 25 percent of all automobiles in the U.S. (22.5 million) have finishes which contain lead pigments. If the exemption is denied, accurate color matched refinish coatings for these cars will not be available. If repaired components cannot be color matched, then, perhaps, a complete repainting of the whole car in a different, lead free, tint may have to be done. This could result in additional costs for the first year of \$360 million (assume 8 percent of the 22.5 million cars are repainted at an average cost of \$200). This annual cost would decline each year to near zero within 10 years because the older cars would gradually wear out and, it is assumed that new car finishes would be reformulated without lead pigments. This reformulation of new car finishes would cost industry approximately \$10 million as a one time cost.

- 2. Agricultural Equipment. These coatings are similar in type and lead content to the above and are sold in containers for brush and spray applications. In 1974, an estimated 35 million gallons of refinishing paints were prodduced for both automotive and agricultural uses for an estimated value of shipments of \$200 million.
  - (b) Industrial and Commercial Building Maintenance Paints Including Traffic and Safety Marking Paints
- 1. Industrial paints consist of glossy enamels, and red lead primers and are used on machinery, equipment, steel doors and frames, and steel structural members and as safety

marking paints. Red lead is used predominately as a corrosion inhibitor in steel structures, railroad equipment, marine craft and metal containers for packing. Most of these coatings are intended for use on articles not generally found in households.

In 1974, 55 million gallons of industrial maintenance coatings valued at \$220 million were produced.

- 2. Commercial building maintenance coatings include a wide range of paints for use on plumbing, electrical conduits and equipment, steel doors and sash, as well as exposed steel structural members. (Interior and exterior wall surfaces are usually, coated with trade sales paints. The quantities and value of these paints cannot be computed from existing trade sales and industrial finish data.)
- 3. Traffic paints consists of two colors: white and yellow. White does not contain lead in concentration greater than 0.06 percent dry weight. As presently formulated, the present yellor traffic paint is highly visible, opague, and durable. A satisfactory substitute has not been found in this use. In 1974, an estimated 25 million gallons of traffic paint was produced and the value of shipments was \$60 million.

If the exemption is denied, little impact on industrial paints will be felt with two exceptions: red lead primers and yellow traffic paints. Red lead primers remain the best corrosion protective coating for ferrous

surfaces. Zine rich and ferric oxide primers are used as substitutes but have not won total acceptance for all applications. No satisfactory substitute for yellow lead chromate has been found for use in traffic paint. Hansa yellows are poor substitutes because of lack of durability and lightfast qualities. Their use could quadruple the cost of yellow traffic paint to municipalities. Denial of the exemption would probably result in more white traffic markings, with loss of color contract and visibility. Attendant safety problems may increase.

(c) Graphic Arts Paints Including Billboard Paints

These coatings are generally specially formulated for application to outdoor advertising billboards, road signs, and identification markings on industrial buildings and traffic signs. One coat coverage, durability and specific light fast colors and tints specified by the manufacturers of products advertised are the required characteristics of these paints. For yellows, oranges, greens, and some browns lead chromates are used. These paints are generally applied by professional sign painters, and are not readily available to consumers.

There are millions of on-premise signs and billboards, and a reported 1,200,000 off-premise commercial signs adjacent

to highways. The quantity of these paints that are used annually is not known but up to half contain leaded pigments or driers. If the exemption is denied, substitutes will be used but some of the above qualities of visibility and durability will be lost. Also, the substitute paints would cost industry an estimated additional several million dollars per year.

## (d) Touchup Paints

These coatings are closely allied to refinish coatings.

They are formulated to duplicate the exact colors of the original finishes on automobiles, agricultural and lawn equipment, small marine craft, and appliances.

They are available for both brush and spray application in small containers including aerosols. They generally contain the same pigment mix as the original but the solvent and resin may be changed to permit atomization and quick drying. For those paints which contain alkyd or modified alkyd resins, lead driers are used. For certain yellows, browns and reds, lead chromate pigments may be used.

These touchup paints are available from retail outlets such as hardware stores, paint stores, and department stores, lawn and garden stores, auto parts stores and sporting goods stores and are intended for consumer use.

These paints are consumer products, however, they are intended for use only on automobiles. They are similar to the original finishes which are exempt from the regulations.

It is possible that these specialized paints could be used around the household for purposes other than that intended but they are very expensive for any application other than to a small area.

It is estimated by an industry source that 25 million units of touchup paints (quarts, pints, ounces) were sold in 1976 indicating a large demand for those products, especially other than to a small area.

Denial of the petition would result in the removal of about 25 percent of the present range of colors from the market. These would be replaced over time as original finish colors were reformulated (see automotive refinishes).

# (e) Exterior Marine Paint for Small Craft

These coatings are formulated for the protection of wood and metal boats although some enamels used for coating machinery and equipment are also used. A majority of small crafts are now made of wood, aluminum, or fiberglass where the use of anti-corrosion primers, such as red lead is not needed except on iron keels and centerboards. Zinc rich primers are used as substitutes for red lead, but it is not known whether their use is satisfactory in all applications.

Spar vanish, which use lead drier, is used extensively on exposed wood on small craft. It has been claimed that there is no adequate substitute available for this clear, flexible and durable coating. However, it has been determined that lead-free driers can be used and other lead-free varnishes are available as substitutes and are equivalent in performance.

In 1974 an estimated 5 million gallons of trade sales marine paints were produced, valued at some \$25 million.

The amount of industrial marine coatings shipped in 1974 was 15 million gallons for a value of \$70 million. The share of this total which is used on small craft is unknown. The use of pigments and drier in marine paint is decreasing, but the extent to which they are presently used in not known.

If the exemption is denied, the result will be a decrease in protection of ferrous surfaces and exposed wood. If substitute primers and varnishes which provide equivalent protection do not become available, more frequent painting would be required and maintenance costs would increase.

## (f) Exterior Rubber Based Roof Coatings

These coatings consist of rubber based formulas and it is unknown as to what quantities are produced and shipped Manufacturers claim that no lead in any form is presently

being used in these catalyzed rubber coatings and that,
because of leaching into rainwater runoff, lead has not
been used for a number of years.

The only data available that may be applicable are for the trade sales of roof and barn paints which includes some of this type of coating. In 1972, these totalled 2.9 million gallons, valued at \$8.4 million.

If an exemption is denied, there would be no known impact.

# (g) Exterior Primer Coatings for-Wood Siding

These coatings are specially formulated for use on surfaces of new wood, particularly cedar and redwood. These woods contain water soluble substance which bleeds into latex topcoats and causes discoloration. It is claimed that lead compounds in primers are needed to prevent this discoloration. It has been claimed that lead free primers have not provide satisfactory.

However, two sources state authoritatively that an acrylic latex primer containing an additive (PR-26) which was developed by the Department of Housing and Urban Development provides satisfactory prevention of bleeding. This primer was tested over a period of five years against lead primers and was found to be superior.

From existing data the quantity of square footage of these woods used as siding is not determinable nor are the quantities sold of these special purpose primers. Data on trade sales of exterior primers and undercoats, which probably includes such special primers, indicates that in 1974 an estimated 10 million gallons (2 percent of total trade sales paints), valued at \$35 million (1.8 of total value were shipped).

If the exemption is denied, present primers which contain lead will be replaced by lead-free primers, such as the one mentioned above. These are produced by the leading paint manufacturers and are readily available.

(h) Coatings for Radio-Controlled, Powered Aircraft

Radio-controlled, powered model aircraft are constructed and used primarily by adults in hobby activities. It is claimed by the petitioners that the lead chromate pigment which is allegedly used on these aircraft is required for authenticity and would not constitute a hazard to children except through gross misuse.



#### IV - SUMMARY OF UNAVOIDABLE ADVERSE EFFECTS

Assuming that the Commission takes some form of regulatory action pursuant to its August 10, 1976 proposal, the unavoidable adverse effects described below will result. In general, these adverse effects will be incurred by the general public and the paint and coatings manufacturing industry and are the result of the reduced allowable level of lead in paints and various household items.

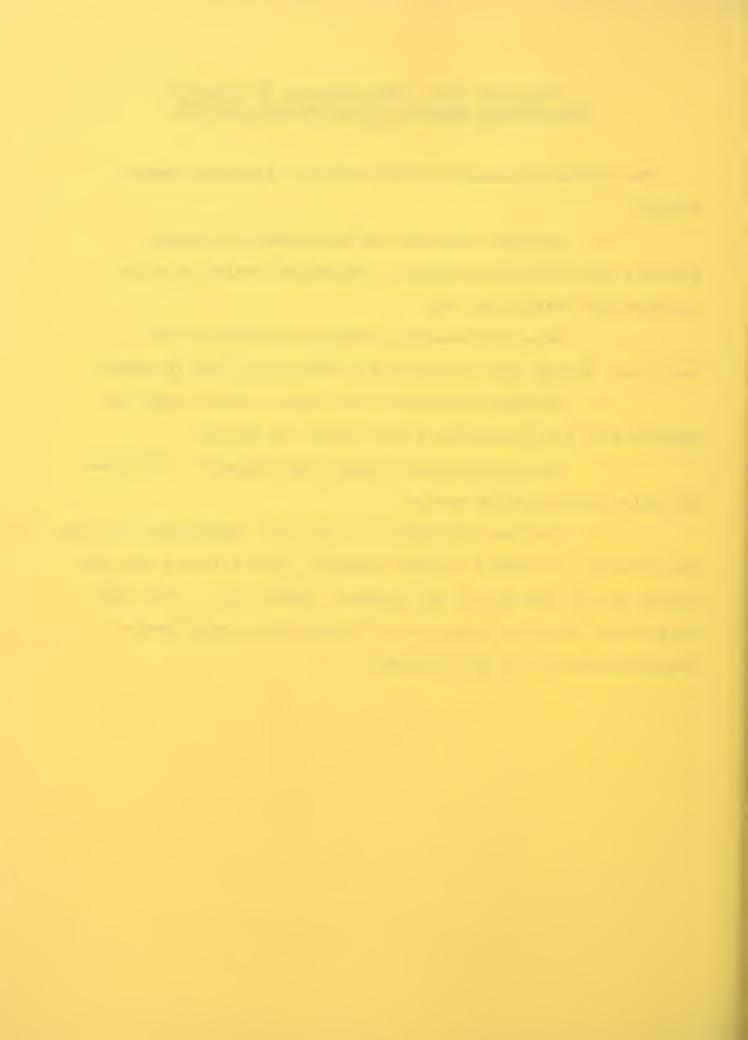
- 1. By reducing the allowable lead level in certain paints and in banning certain articles coated with such paints, the following effects will result:
  - -- Lead driers cannot be used in trade sales paints, reducing the performance characteristics in certain special circumstances such as in low temperature/high humidity climates. Substitute materials and new formulations to minimize this effect are being developed.
  - Paint manufacturers must practice more careful housekeeping to avoid lead contamination of paint batches which fall within the promulgated regulation.
  - -- An added financial burden will fall to paint manufacturers to monitor their paint batches and possibly some raw materials (either in-house or by outside laboratories) for lead concentration. Sophisticated analytical equipment is required for this.
  - -- Water-thinned paints used in lieu of lead-containing solvent-thinned paints may result in a slight increase in mercury usage by the paint industry.
  - Slight increases in the amount of paint processing waste generated will result from cleaning with solvents.



# V - MEASURES UNDER CONSIDERATION TO MINIMIZE UNAVOIDABLE NEGATIVE ENVIRONMENTAL EFFECTS

The following measures can be taken to minimize adverse effects:

- -- Continue research and development for paint products and drier substitutes of near-equal characteristics to materials containing lead.
- -- Establish sampling frequency guidelines and analytical method specifications for monitoring lead in paints.
- -- Continue research by the paint industry and its suppliers to find substitutes for mercury in paints.
- -- Improve treatment, reuse, and disposal techniques for paint manufacturing wastes.
- -- Postpone the effective date for regulations to allow the industry to conduct further research, thus allowing the continued use of lead driers and pigments temporarily. This will help assure that the reduction of certain paint performance characteristics will be minimized.



## VI - RELATIONSHIP BETWEEN LOCAL SHORT TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

The basic tradeoff under consideration is the reduction of lead concentrations in paints to a less hazardous level (thereby offering more protection to children with pica for paint) versus some reduction in certain types of paint product quality and performance.

Under the proposed regulations, the allowable level of lead in paints is being lowered to preclude the addition of lead compounds except those present as contaminants in paint raw materials. Eventually, the use of essentially lead-free paint should minimize the possibility of lead poisoning from paint in new applications.

Other Federal agencies are participating in this effort.

HEW is responsible, under the LBPPPA, for prohibiting the application of lead based paint to any cooking utensil, drinking utensil, and eating utensil. At the same time, HUD must prohibit the use of lead based paint in residential structures constructed or rehabilitated by the Federal Government or with Federal assistance in any form. HUD is also investing in research to find ways to reduce the hazard of lead based paint already on walls and trim in the consumer sector.

In the long term, industry research and development efforts should result in improved coatings and drying agents which will eliminate the need for lead compounds in paint and coatings generally intended for consumer use.

# VII - IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION IF IT WERE IMPLEMENTED

Irretrievable commitments of resources include the research and development needed to find improved coatings and drying agents which will eliminate the need for lead compounds in paint and coatings for consumer use. Manpower and laboratory equipment must be committed to this effort plus the effort required to monitor lead levels in the manufacture of paints and their raw materials. Reductions in allowable lead levels will result in a slightly increased usage of cobalt, manganese, iron, calcium, zirconium, and mercury. The raw materials used in other coatings and drying agents that are now, or may be in the future, substitutes for lead-containing paint products must be committed.



# VIII - REFERENCES

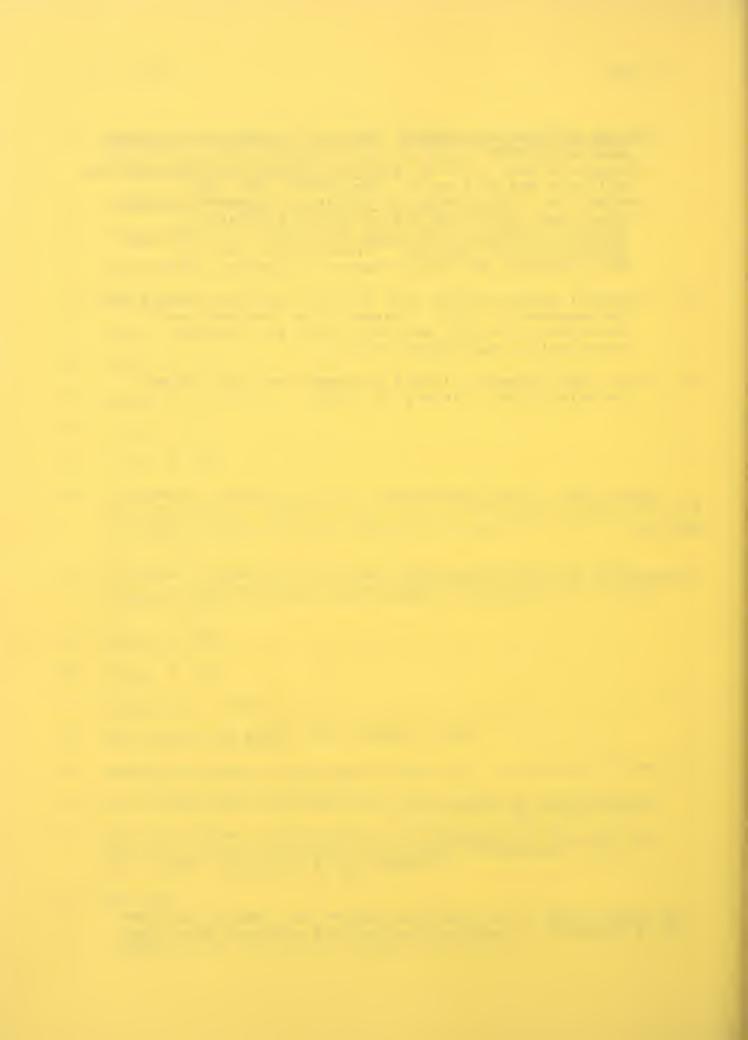
- 1. WAPORA, Inc., Assessment of Industrial Hazardous Waste Practices, Paint and Allied Products Industry, Contract Solvent Reclaiming Operations, and Factory Applications of Coatings. Prepared for U.S. Environmental Protection Agency, Office of Solid Waste Management Programs, Washington D.C., September, 1975.
- 2. Battelle, Columbus Laboratories, Research Report on Impact Study of Lead in Paint. Prepared for the U.S. Consumer Product Safety Commission, Bureau of Economic Analysis, Columbus, Ohio, September 27, 1976.
- 3. Shreve, Norris L., Chemical Process Industries, McGraw-Hill, Inc., Chemical Engineering Series, 1967.
- 4. Columbia University Press, The New Columbia Encyclopedia, New York, 1975.
- 5. John Wiley and Sons, Inc., <u>Protective and Decorative Coatings</u>, edited by Joseph J. Mattiello, 1942.
- 6. U.S. Department of Commerce, <u>U.S. Census of Manufactures</u>, 1967 and 1972.
- 7. National Paint and Coatings Association, <u>Petition to Extend 0.5 Percent as the Safe Level of Lead in Residential Paint Products Pending Completion and Final Evaluation of Appropriate Research, not dated.</u>
- 8. Roland, Robert A., <u>Testimony of Robert A. Roland, President of the National Paint and Coatings Association before the Consumer Product Safety Commission, September 13, 1976.</u>
- 9. The bulk of this section has been referenced to: National Academy of Sciences, Recommendations for the Prevention of Lead Poisoning in Children, Washington D.C., July, 1976.
- 10. Ibid. p. 39.
- 11. Greenberg, Nauman H., M.D., <u>Lead-Based Paint: Safe Level</u>
  <u>Determination</u>, Statement for Oral Presentation before the
  <u>U.S. Consumer Product Safety Commission</u>, Washington D.C.,
  September 13, 1976.

- 12. National Academy of Sciences, Recommendations for the Prevention of Lead Poisoning in Children, Washington D.C., July, 1976. pp. 41-43.
- 13. <u>Ibid</u>. p. 40-41.
- 14. Ibid. p. 5.
- 15. Ibid. p. 20.
- 16. Ibid. p. 21.
- 17. Ibid. p. 38.
- 18. Ibid. p. 19.
- 19. Ibid. p. 7, 37.
- 20. Ibid. p. 7.
- 21. Ibid. p. 39.
- 22. Greenberg, Nauman H., M.D., <u>Lead-Based Paint: Safe Level</u>

  <u>Determination</u>, Statement for Oral Presentation before the U.S.

  Consumer Product Safety Commission, Washington D.C., September 13, 1976.
- 23. National Academy of Sciences, <u>Recommendations for the Prevention of Lead-Poisoning in Children</u>, Washington D.C., July 1976, p. 50.
- 24. Ibid. p. 49.
- 25. Ibid. p. 45.
- 26. Ibid. pp. 45-48.
- 27. The Paint Red Book, 8th edition. 1976.
- 28. Marketing Guide to the Paint Industry, 4th edition, 1975.
- 29. U.S. Department of Commerce, 1972 Census of Manufactures.
- 30. National Academy of Sciences, Recommendations for the Prevention of Lead Poisoning in Children, Washington, D.C., July, 1976. Appendix E. pp. 45-48.
- 31. Sources:
  American Society for Testing and Materials, Paint-Tests for
  Formulated Products and Applied Coatings, Philadelphia, PA,
  1976.

- Columbia University Press, The New Columbia Encyclopedia, New York, 1975.
- Stedman, Thomas Lathrop, Stedman's Medical Dictionary, The Williams and Wilkins Co., Baltimore, MD, 1966.
- Williams and Wilkins Co., Baltimore, MD, 1966.
  WAPORA, Inc., Assessment of Industrial Hazardous Waste
  Practices, Paint and Allied Products Industry,
  Contract Solvent Reclaiming Operations, and Factory
  Application of Coatings. Prepared for the U.S.
  Environmental Protection Agency, September, 1975.
- 32. Personal communication with Francis Scofield, WAPORA, Inc., on December 6, 1976. (Former Vice President and Technical Director, National Paint and Coatings Association, Washington, D.C.).
- 33. Draft Environmental Impact Statement on Lead Content in Paint, CPSC, January 19, 1977.



# IX - GLOSSARY

amenolevulinic acid dehydratase (ALA-D) - a liver enzyme.

architectural coatings - coatings intended for on-site application to interior or exterior surfaces of residential, commercial, institutional or industrial buildings.

acrylic resin - under resin, synthetic, see acrylic resin.

alkyd resin - under resin, synthetic, see alkyd resin.

asymptomatic - without symptoms, or producing no symptoms.

binder - the film forming ingredient in paint that binds the pigment particles together.

brain edema - abnormal accumulation of fluid in the skull causing swelling.

cholesterol - fatty substance found in the body tissues of vertebrates.

coating - a liquid, liquefiable or mastic composition that is converted to a solid protective, decorative, or functional adherent film after application as a thin layer.

dendrite - one of the branching protoplasmic processes of the nerve cells, dindron.

diluent - a liquid, usually a petroleum hydrocarbon, which is blended with an active solvent in a paint or lacquer to increase the bulk or reduce the cost.

drier - a composition which accelerates the drying of oil, paint, or printing ink. Driers are usually metallic-based compositions and are available in both solid and liquid forms.

enamel - a pigmented coating which is characterized by an ability to form an especially smooth film which is free from brush or other tool marks. Although most enamels are glossy, flat enamels are also available. They are usually considered to be relatively hard coatings.

enzyme - ferment. A protein, secreted by the body walls, that
acts as a catalyst, inducing chemical changes in other substances,
itself remaining apparently unchanged in the process.

extender - a pigment which is usually inexpensive and inert in nature, used to extend or increase the bulk of a paint, thus reducing its unit cost, and modifying its consistency.

exterior paint - a coating for the outside surfaces of a structure.

factory-applied coating - a coating which is applied in a manufacturing establishment as part of the operation of making an article of commerce.

fecal excretion - feces excretion.

film - layer or coat of paint or other material applied to a surface.

flat finish - having no gloss or luster.

fungicide - an agent that helps prevent mold or mildew growth on a painted surface.

gastrointestinal - relating to both stomach and intestine.

glial replication and differentiation - replication and differentiation of glial cells, hairlike filaments which structurally support the nerve cells in the brain.

hematocrit - a centrifuge for separating the cells and other particulate elements of the blood from the plasma.

hematopoietic - pertaining to or related to the formation of blood cells.

hemoglobin - respiratory pigment found in the red blood cells of all vertebrates and some invertebrates.

industrial coating - a paint used to coat a manufactured product prior to its sale.

interior paint - a coating for the inside surfaces of a structure.

lacquer - a fast-drying clear or pigmented coating that dries by solvent evaporation only. Other types of coatings, by comparison, dry by a combination of evaporation, oxidation, and polymerization of portions of their constituents.

latex paint - a paint containing a stable aqueous dispersion of synthetic resin, produced by emulsion polymerization, as the principal constituent of the binder. Modifying resins may also be used.

lead encephalopathy - convulsions, delirium, hallucinations, and other cerebral symptoms due to chronic lead poisoning.

marine paint - a varnish specially designed to withstand immersion in water and exposure to marine atmosphere.

metabolism - tissue change; the sum of the chemical changes whereby the function of nutrition is affected.

mildewcide - see fungicide.

mylineation - the formation of myelin; a near-white substance which sheaths the nerve fibers in the brain and forms the white matter of the brain.

neurologic - having to do with nervous symptoms and disorders.

oil paint - a paint that contains drying oil or oil varnish as the basic vehicle ingredient.

paint n, specific - a classification sometimes employed to distinguish pigmented drying oil coatings ("paints") from synthetic enamels and lacquers.

emulsion paint - a paint, the vehicle of which is an emulsion of binder in water. The binder may be oil, oleoresinous varnish, resin, or other emulsifiable binder.

latex paint - a paint containing a stable aqueous dispersion of synthetic resin, produced by emulsion polymerization, as the principal constituent of the binder. Modifying resins may also be present.

oil paint - a paint that contains drying oil or oil varnish as the basic vehicle ingredient.

paste paint - a paint in which the pigment is sufficiently concentrated to permit a substantial reduction with vehicle before use.

water paint - a paint, the vehicle of which is a water emulsion, water dispersion, or ingredients that react chemically with water.

pica - the repetitive ingestion of non-food substances.

pigment - the fine solid particles used in the preparation of paint or printing ink and substantially insoluble in the vehicle. Asphaltic materials are not pigments except when they contain substances substantially insoluble in the vehicle in which they are used.

plasticizer - a substance added to paint, varnish, or lacquer to impart flexibility. postnatal - occurring after birth.

postpartum - occurring after childbirth.

preservative - material added to water-thinned paints to prevent the growth of bacteria or yeast in the can during paint storage.

primer - the first of two or more coats of a paint, varnish, or lacquer system.

renal - relating to the kidneys.

resin - a natural or synthetic material that is the main ingredient of paint which binds the various other ingredients together. It also aids adhesion to the surface.

shellac varnish - a varnish made by dissolving shellac resin in alcohol. Shellac is the form of lac resin obtained in thin curled sheets (shells).

solvent - the volatile part of a paint composition that evaporates during drying.

stain - a solution or suspension of coloring matter in a vehicle designed primarily to be applied to create color effects rather than to form a protective coating. A transparent or semi-opaque coating that colors without completely obscuring the grain of the surface.

symptomatic - relating to a symptom or symptoms; indicative.

synaptic connections - relating to the place where a nerve impulse is transmitted from one neuron to the other.

trade sales coating - a paint sold for consumer use or for maintenance of commercial structures.

ug Pb/dl - daily absorption of lead in micrograms of lead (Pb) per deciliter.

urethane coatings - coatings based upon vehicles containing a minimum of 10 percent by weight (nonvolatile vehicle basis) of a polyisocyanate monomer reacted in such a manner as to yield polymers containing any ratio, proportion or combination of urethane linkages, active isocyanate groups of polyisocyanate monomer. The reaction products may contain excess isocyanate groups available for further reaction at time of application or may contain essentially no free isocyanate as supplied.

varnish - a liquid composition that is converted to a transparent or translucent solid film after application as a thin layer.

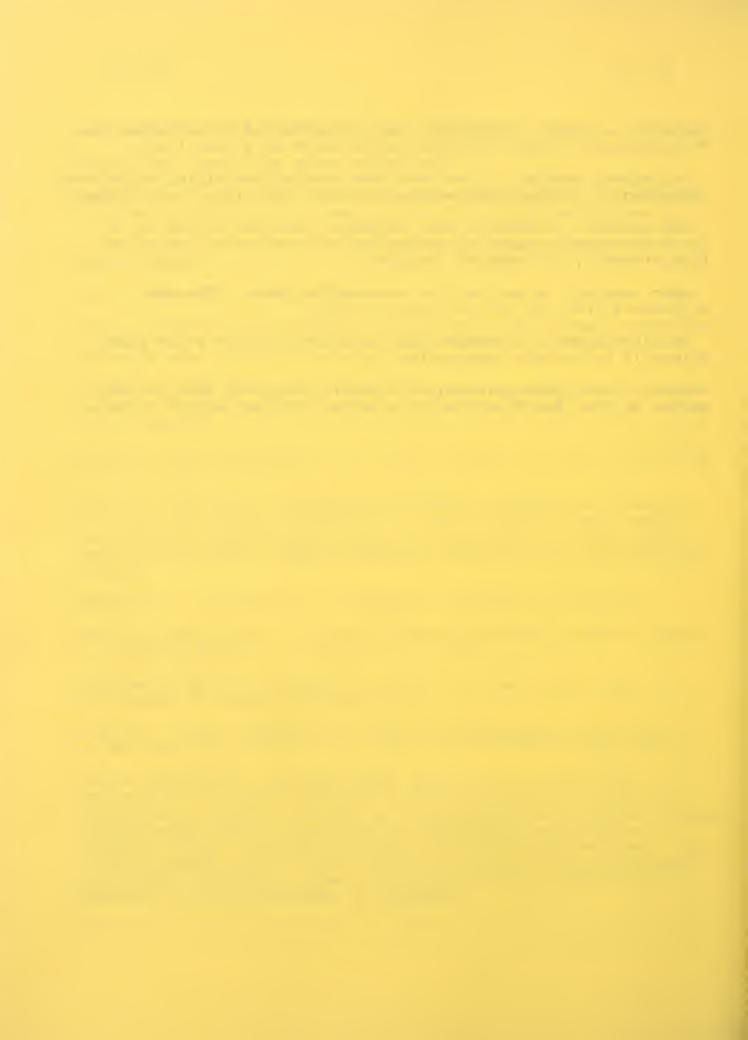
bituminous varnish - a dark-colored varnish containing bituminous ingredients. The varnish may be either of the oil or spirit type.

oil varnish - a varnish that contains resin and drying oil as the basic film-forming ingredients and is converted to a solid film primarily by chemical reaction.

spar varnish - a varnish for exterior surfaces. The name originated from its use on spars of ships.

spirit varnish - a varnish that is converted to a solid film primarily by solvent evaporation.

vehicle - the liquid portion of a paint. Anything that is dissolved in the liquid portion of a paint is a part of the vehicle.



# APPENDIX A - HEALTH EFFECTS OF LEAD IN PAINT AND RISKS FROM CONSUMER PRODUCTS(9)

# SAFE LEVEL OF LEAD IN PAINT

This section describes the health effects problems of lead in paint; namely lead poisoning in children. The National Academy of Sciences report to the Consumer Product Safety Commission under the Contract CPSC-C-75-0018 provides most of the information regarding the lead poisoning in children with pica for paint. The main objective of that contract was to recommend a "safe level" of lead in paints based on an evaluation of four studies submitted by the CPSC to the NAS.

Although the NAS could not determine a safe level of lead above 0.06 percent in paint, they did conclude that the 0.5 percent lead level in paint is a hazard to children with pica for paint. NAS recommended that a lead level not to exceed 0.06 percent be set for regulatory purposes. The following paragraphs discuss the studies and research which brought the National Academy of Sciences to this conclusion.

# DISCUSSION OF LEAD POISONING

The most serious health effect of lead in paint is lead poisoning in children. "Paint provides the most concentrated source of lead potentially available to a young child,"(10) according to the National Academy of Sciences' report, Recommendations for the Prevention of Lead Poisoning in Children.

Dr. Nauman H. Greenberg, Medical Director of the Childhood Lead Poisoning Control Program for the City of Chicago states that the main source of lead in childhood lead poisoning is lead-based paint. Lead-based paint chips or peelings are sometimes eaten by children, especially those children with pica (the repetitive ingestion of nonfood substances).(11)

There are three stages which occur in lead poisoning, the first of these being asymptomatic lead poisoning. During the asymptomatic stage, symptoms are not clinically present, but changes in basic metabolism occur. The second stage is the symptomatic change where symptoms such as loss of appetite, vomiting, apathy, drowsiness and inability to coordinate voluntary muscle movements occur. Aftereffects of the symptomatic stage include restlessness, short-attention span, easy distractibility, and seizure disorders of minimal brain dysfunction. Other aftereffects include hyperactivity, withdrawal, temper tantrums, fear, refusal to play, slowed learning ability and perceptual disorders.

Lead encephalopathy is the third stage of childhood lead poisoning with brain endema which involves alterations of the brain structure. During this stage, coma or convulsions occur. Effects in this stage are permanent and include blindness, mental retardation, behavior disorders, central nervous system pathology, and death.

OF LEAD

Hematopoietic Effects

The effects of lead occur in the hematopoietic, neurologic and renal systems. The hematopoietic system is currently considered the cite where the "critical effect" or first effect occurs although this is not known for sure. In the hematopoietic system, lead interferes with the production of hemoglobin and inhibits the enzymes, aminolevulinic acid dehydratase (ALA-D) and ferro chelatase. This results in the accumulation of free erythrocyte protoporphyrin (FEP) in the blood and amino levulinic acid (ALA-U) in urine. Lead reduces the life span of the red blood cells and the result is lead-induced anemia. Hematopoietic effects occur in children with blood-lead levels in the range of 30-40 µg Pb/dl according to NAS. The hematopoietic effects of lead-poisoning are reversible.

The National Academy of Sciences reports two studies related to hematopoietic effects. They state,

"European studies have shown that increases in free erythroctye protoporphyrin begin to occur in women and children when blood lead levels reach a range of 25-30  $\mu g$  Pb/dl, and in men at 34-45  $\mu g$  Pb/dl. It is now known that it is zinc protoporphyrin rather than the free pro toporphyrin IX which is present in excess in the circulating erythrocyte in lead poisoning and iron deficiency. Population studies of children in the United States have rarely included a sufficient number of children with<20  $\mu g$  Pb/dl to determine this lower threshold level. A second threshold is seen in children when blood lead levels reach the range of 35-40  $\mu g$  Pb/dl. The excretion of ALA-U begins to rise in both adults and children when blood lead levels reach the

range of 40-50 µg Pb/dl. In children, quantitative collections of urine are required for ALA-U. The determination of ALA-U in random urine specimens from children is of little value.

"Hernberg has demonstrated that lead shortens the life span of the red blood cell and that this is a mechanism by which lead produces anemia. Tola had demonstrated a significant decrease in hemoglobin levels in new workers occupationally exposed to lead. Decreased hemoglobin levels became evident within two to three months, as Pb-B approached 50 µg/dl. Pueschel found a significant negative relationship between hemologlobin levels and blood lead levels in children. Blood lead levels -60 µg Pb/dl were almost always associated with hemoglobin levels 10 µg/dl. Betts found hemoglobin levels 11 µg/dl in 36 percent of children with 37-60 µg Pb/dl, 71 percent with 60-100 µg Pb/dl and 89 percent with -100 µg Pb/dl. Rosen et al found a negative relationship between hematocrit and blood lead concentrations at levels exceeding 40 μg Pb/dl."(12)

# NEUROLOGIC EFFECTS

Neurologic effects (those effects associated with the nervous system) are difficult to measure and are difficult to attribute to lead poisoning alone because of the many other factors attributed to malfunction of the nervous system. As stated, neurological effects are irreversible and occur during the lead encephalopathy stage. There is some controversy as to whether neurological effects occur during the asymptomatic and symptomatic stages, and this has not been proven. According to the NAS, neurological effects occur in children with blood lead levels in the range of 50-60 µg Pb/dl or above. The National Academy of Sciences cites several studies dealing with neurological effects in asymptomatic children. Two such studies were conducted by B. de la Burde which NAS summarized below.

"Both study and control children were drawn from an on-going Child Development Study at the Medical College of Virginia in Richmond. Mothers were followed during pregnancy and delivery and children followed for eight postnatal years. The study group consisted of 67 asymptomatic children who had a positive history of pica for paint or plaster, lived in deteriorated old housing, had positive urinary coproporphyrin tests and either a blood level level 40 μg Pb/dl or blood lead 30 μg Pb/dl and positive radiographic findings for lead lines in the long bones. Because of the analytical problems inherent in blood lead methodology, as performed in the 1960's, we feel that this combination of criteria for selecting the study group was more reliable than a selection based on blood lead levels alone. Even so, the absence of serial blood lead levels, which were not feasible at the time, is the major weakness of this study. weakness is largely overcome by dependence on x-rays and repeatedly positive urinary coproporphyrin tests. Positive bone x-rays and positive urine coproporphyrin tests are generally associated with blood lead concentrations equal to or greater than 60 µg Pb/dl. Lead levels in shed deciduous teeth were performed several years later on teeth from 29 of the lead-exposed children and 32 of the control children. The mean tooth lead level for the study group was significantly higher than the mean tooth lead level of the control group. The control group consisted of 70 children who had a negative history of pica for paint or plaster, lived in modern housing, did not visit older housing for day care and had negative tests for coproporphyrin in urine. In addition, all children were excluded from both groups who showed neurologic abnormalities or developmental lag either during the newborn period or at four months, if abnormalities were noted on the Bayley scale at eight months, or if confirmed or suspected disease of the central nervous system was noted anytime before seven years of age. In addition, the groups were comparable in age, sex, race, monther's nonverbal I.Q., socioeconomic status, family composition and possible sources of family upheaval such as death in the family, foster home placement or working mother.

"Neurological and psychological tests were administered to both groups at four years of age and again at seven years of age. Fifty-eight children from each group also had tests repeated at eight years of age. At four years of age, the most significant difference between the groups were in the areas of fine motor coordination and behavior. Failure on fine motor tests

occured almost twice as frequently in the lead-exposed group as in the control group. Deviation in overall behavior ratings occured almost three times as frequently in the lead-exposed group. Mean I.Q. scores, as measured by the Standford-Binet test, were 89 + 13.1 for the lead-exposed group and 94+ 10.5 for the control group. At seven years of age, neurologic examination revealed deficits in more than twice as many children from the study group as from the control group. scale I.Q., as measured on the Wechsler Intelligence Scale for Children revealed that the majority of children from both groups had average intelligence, although the mean I.Q.'s were statistically significantly (p<0.01) lower in the lead-exposed group. The frequency of results in the borderline or mentally defective range was higher in the lead-exposed group. Short attention span and minimal goal orientation occurred in 32 percent of lead-exposed children and 14 percent of control children. Poor academic progress was noted in 27.8 percent of lead-exposed children and 4.1 percent of control children. The number of children repeating at least one grade was higher in the lead-exposed group (25.9 percent) than in the control group (6.1 percent). Eleven lead-exposed children and four control children were receiving speech therapy for speech impediments.

"The authors felt that the most significant difference between the groups was in the area of behavior and that this was the primary cause for poor school performance. Among the lead-exposed group, five had been seen by psychiatrists, one had been institutionalized and three were subject to seizures. None of these findings occurred in any of the control children. review of school records revealed that hyperactivity, explosive behavior and frequent temper tantrums Occurred in 19 lead-exposed children and 5 control children. The behavior problems which had been apparent at four years of age, but which were adequately handled in the home environment, persisted at seven years and prevented appropriate functioning in the school environ-It is of interest to note that these findings ment. in asymptomatic children are similar to the findings of Although Byers and Lord in symptomatic children. Byers and Lord found little difference between lead poisoned and control children, in relation to overall I.Q., the lead-poisoned children were found to have significantly poorer school performance."(12)

Other studies cited by NAS are as follows:

"The results of several additional studies have suggested a relationship between increased lead absorption and neurologic deficits in young children.

Albert et al obtained data on 371 children with varying degrees of lead exposure. A record of blood lead levels was obtained from the New York City Health Department blood lead registry. The mean age at time of blood test was 2.5 years. Relocation and evaluation of the patients took place 3-11 years after blood lead testing. The children were divided into five groups according to degree of exposure. Group I contained six children with lead encephalopathy, Group II contained 154 children treated for lead poisoning who did not have encephalopathy. Group III contained 65 children with blood levels -60 µg Pb/dl who were not treated, Group IV contained 57 children with 60 µg Pb/dl, but elevated tooth lead levels, and Group V contained 89 children with both low blood lead and tooth lead levels. Neurologic disorders, including mental retardation, organic brain syndrome, seizure disorders and behavior disorders, were found in 66.7 percent from Group I, 11.0 percent from Group II, 18.5 percent from Group III, 3.5 percent from Group IV and 4.5 percent from Group V. Psychometric tests were performed on 159 of the 371 children. A composite rating based on Intelligence Quotient, Bender-Gestalt quotient, Figure Drawing quotient and Purdue Pegboard error score was made by a clinical psychologist. Groups I and III had significantly lower ratings than Group V. Groups II and IV did not differ significantly from Group V. It is not surprising that the encephalopathy group showed neurologic deficits. The fact that the untreated children with 60 µg Pb/dl (Group III) showed a higher frequency of neurologic deficits than the diagnosed and treated cases of lead poisoning (Group II), lead the authors to conclude that this group contained children who should have received chelation therapy. Clinical records revealed that 37 of the 65 children in Group III had symptoms compatible with lead poisoning.

"Perino and Ernhart reported a significant negative relationship between blood lead levels and cognitive, verbal and perceptual abilities in 80 asymptomatic children, ages 3 years to 5 years, 11 months, who had blood lead levels ranging from 10-70  $\mu g$  Pb/dl. They also found a significant negative relationship between parental education level and blood lead levels in the children. Their "low lead" group (10-30  $\mu g$  Pb/dl) did not differ significantly from the "moderate lead" group (40-70  $\mu g$  Pb/dl) in socio-economic status, sex, age, parental intelligence, number of siblings, birth order or birth weight."(13)

# RISK FACTORS

Evidence in both animals and children indicate age and diet are primary factors influencing absorption and effects of lead according to NAS. The Risk factors which increase the danger of lead poisoning include age, diet, and pica.

Age is a risk factor because, up to the age of four, there is a rapid rate of brain growth in the newborn. This is known as the "growth spurt" which begins during the sixth month of pregancy and continues through the third and fourth year postpartum. Glial replication and differentiation and cerebellar growth are most rapid during the first 18 months of life. Myelination occurs into the third and fourth years of life. The brain is most vulnerable during the growth spurt. Studies in rats and lambs administered lead during the growth spurt have shown slowed learned abilities which persist in the adult stage even after blood lead levels have returned to normal.(14)

Increased intestinal absorption of lead is related to age.

Lead is absorbed to a greater degree in the young than the adult.

"Alexander's balance study in eight healthy children showed that approximately 50 percent of dietary lead was absorbed. Kehoe's balance studies in adults showed that only 10 percent of dietary lead was absorbed. Using the average dietary lead intake for normal "nonexposed" adults and the different absorption ratios and caloric requirements for children and adults, a 3-year-old

child would absorb 12 times more dietary lead than the adult receiving the same diet."(14).

The following studies cited by the NAS concern the lead absorption rate during the growth spurt versus lead absorption in adults.

"The growth spurt in rats occurs during the first 24 days post-partum. Glial cell multiplication occupies the first half of this period. The second half extending to about the 25th postnatal day, is a period of rapid myelination. Dendritic authorization and synaptic connections are also occurring during this period, along with dramatic metabolic and neurochemical development and rapid cerebral growth. Demonstrable and permanent clumsiness is associated with cerebellar deficits caused by hyponutrition during the growth spurt.

"Momcilovic and Kostial found that the uptake of lead in the brain of suckling rats was six to eight times greater than that found in the brain of the adult rat. Krigman et al, by adding PbCO3 to the diet of the mother, induced a four-fold increase of lead in the brain of sucklings over the amount found in the mother. Total brain growth rate was inhibited and myelin production was reduced in the brain and in the sheath about the axons. Reduced amounts of galactolipids, cholestrol, plasmalogens and total phospholipids were observed in these animals. No data were reported for the lead content of milk or blood"(15)

Dietary composition and deficiencies are also an influence on increased intestinal absorption of lead. A diet containing lipids or milk increases the absorption of lead. Dietary deficiencies include iron, calcium and copper which also increased the absorption of lead. According to the NAS report, a typical child's diet includes fats and milk and a significant percentage of children have a dietary deficiency of both calcium and iron.

NAS states that studies in rats have revealed deficiencies of calcium, copper and iron increase the absorbtion of lead. Other experimental animals have been used to reveal fats and milk increase lead absorption.(16) The National Academy of Sciences cites the following examples related to dietary composition and deficiencies:

"Kostial's studies of rats show greater absorption of lead if administered in milk than if administered in dry feed. Animal studies involving dietary deficiencies of calcium, copper and iron have shown that these deficiencies increase the absorption of lead. In long-term experiments in growing rats, restriction of dietary iron and calcium to 20 percent of the Recommended Daily Allowance for growing young rats increased the absorption and retention of lead by a factor of two or more. This degree of reduction in dietary intake of calcium and iron has been reported in two- to three-year old children from low-income familities. A population survey of American children showed less than optimal calcium intake ranging between 12-14 percent for white children and 23-25 percent for black children. Iron deficiency, defined as hemoglobin levels<10 grams, was seen in approximately 4 percent of white children from families above the poverty line, 10.8 percent of white children in families below the poverty line, 17.6 percent of Negro children in families above the poverty line and 15 percent have also reported dietary deficiencies of calcium and iron in young children. Iron deficiency is most prevalent among children 12-24 months of age.(17)

"Klein and associates studied the relationship between starvation, caused by pyloric stenosis, and intelligence. Pyloric stenosis occurs between birth and three months of age, is surgically correctable and is not associated with any particular socioeconomic or cultural group. Klein found that the brief period of starvation in infancy, prior to surgery, had permanent effects on learning abilities and general adjustments, as measured 5-14 years later. Hertzig et al found reduced I.Q. levels in school-age boys who had been malnourished during the first two years of life. In humans, the initial exposure to lead in paint usually coincides with ambulation and so begins at 10-12 months postpartum, while exposure

to lead from some canned nutrients may begin at or shortly after birth."(18)

# PICA AND LEAD INGESTION

Pica, the repetitive ingestion of nonfood substances, is another risk factor to be considered. Pica occurs in 50 percent of children between the ages of one and three. Pica has long been associated with lead-paint poisoning since within that range of age the growth spurt occurs. "Pica for paint is believed to be episodic and can occur two to three times a week." (19) Pica for paint usually occurs after a child has learned to crawl or walk.

The National Academy of Sciences states that the 0.5 percent lead in paint represents a hazard for a child with pica for paint. They state the following:

"Abdominal x-ray films showed radiopaque materials in the intestinal tract in 35 percent of children attending the Chicago Lead Clinic. The best available clinical evidence indicates that children with pica may ingest one to three grams of paint per week. If the paint contained the present legal limit of 0.5 percent lead (5,000  $\mu$ g/g paint), then the daily ingestion of lead from paint would be 714  $\mu$ g Pb/day, 1,429 µg Pb/day or 2,143 µg Pb/day, respectively, for one, two or three grams of paint ingested per week. Calculated on the basis of body weight for a two-year old child weighing 12.5 kg, and using an absorption factor of 17 percent for lead from paint, the amount of lead absorbed would be 9.7 μg Pb/kg/day, 19.4 μg Pb/kg/day and 29.1 µg Pb/kg/day, respectively, for one, two and three grams of paint ingested per week. The daily absorption of 4.5 µg Pb/kg/day has been found in children with essentially normal blood lead levels of approximately 20  $\mu$ g Pb/dl. The estimated daily absorption of lead from paint must be superimposed on the estimated absorption of lead from diet,

in order to obtain a total daily absorption. Thus, the daily absorption of lead in a child with pica for paint (containing 0.4 percent Pb) may be three to seven times that found in a child receiving a normal diet."(20)

"Paint provides the most concentrated source of lead potentially available to a young child. House paints containing the present legal limit of 0.5 percent lead would provide 5,000  $\mu g$  Pb/g paint. Sachs has indirectly estimated the quantity of paint ingested by a child with pica for paint. Model x-ray films were made, using known quantities of paint. Model x-ray films were made, using known quantities of paint. These were then compared to abdominal x-ray films taken of children known to have pica for paint. Seven out of 10 randomly selected films showed radiopacities equivalent to an estimated 1 gram of paint. At least one film was established to show 20 grams of paint".(21)

Children with pica for paint eat such things as peeling, cracking or flaking paint or painted plaster inside their homes. Dr. Nauman Greenberg maintains that the association of paintpeeling ingestion and lead poisoning is fundamental. Dr. Greenberg states that given a paint peeling two-inches square from a wall coated with three layers of 0.5 percent lead in paint, the lead content would exceed the daily permissible intake (DPI) five times. Dr. Greenberg defines DPI as an amount of lead which could be metabilized in a 24-hour period or about 500 grams lead/day. Based on his studies of pica behavior, a two-year old child with a moderate pica for paint would result in a daily ingestion of 10 or more such peelings. The amount ingested, according to Dr. Greenberg, would exceed the DPI 50 times. A brief duration for a pica habit would be from 2 to 4 months and a child with a pica for paint lasting 90 days would

exceed the DPI 4,500 times. Dr. Greenberg goes on to state that the amount of lead absorbed could be between 10 and 80 percent. The amount of lead actually absorbed in the bloodstream for the above example could be anywhere from 450 and 3,600 times the DPI.(22)

Dr. Greenberg does not reference where he obtained the definition of DPI, the conditions, or the location of the study.

The Committee on Toxicology, National Academy of Sciences feels the daily permissable intake (DPI) should be recalculated. They feel specific consideration should be given to:

- 1. Lowering the currently acceptable blood lead level of 40 µg Pb/dl for children.
- 2. Accounting for a higher intestinal absorption rate in young children.
- 3. Allowing a "safety factor" for children less than one year of age, since no data regarding effects or absorption rates are known for this group.
- 4. Expressing the DPI on either a body weight (μg Pb/kg/day) or caloric (μg Pb/Kcal) basis."(23)

The currently acceptable blood lead level of 40  $\mu g$  Pb/dl for children was decided by an <u>ad hoc</u> committee convened by the Bureau of Community Environmental Management, Public Health Service, DHEW in 1971. They also decided that the DPI for children should not exceed 300  $\mu g$ /Pb/day. Kehoe's balance studies on adult volunteers were used as reference for the acceptable blood level.(24)

Since more recent studies have come about NAS feels they should take precedence over Kehoe's studies. NAS cites them as follows:

"More recent evidence indicates that the absorption of dietary lead is approximately 50 percent in young children. Alexander found that an intake of 10  $\mu$ g/kg/day resulted in a daily fecal excretion of 5  $\mu$ g/kg/day. Barltrop found that children with a fecal excretion of approximately 5  $\mu$ g/kg/day had a geometric mean blood lead level of 20  $\mu$ g Pb/dl with a range of 11-38  $\mu$ g Pb/dl. Studies in suckling animals suggest that the intestinal absorption rate of lead from milk may be as high as 70-90 percent. These studies suggest that the absorption rate of lead in children less than one year of age may be higher than 50 percent. In addition, the brain of infant rates accumulates lead to a greater extent than the brain of adult rats.

"Based on this new information, the daily absorption of lead from diet can be recalculated. The caloric requirement of a three-year old child weighing 15 kg is one-half of the caloric requirement of an adult weighing 70 kg. Tepper, cited in King, reported that the average adult diet contained 220 µg Pb/24 hours. If a three-year old child consumed the same diet, reduced to one-half to meet his caloric requirements, his dietary lead intake would be 110  $\mu$ g Pb/24 hours. Based on a dietary absorption factor of 10 percent, the adult would absorb 22  $\mu$ g Pb/24 hours or 0.31  $\mu$ g Pb/kg body weight/day ([220 x 10 percent] - 70 kg). Based on the dietary absorption factor of 50 percent, the child would absorb 55  $\mu$ g Pb/24 hours or 3.67  $\mu$ g Pb/kg body weight (110 x 50 percent - by 15 kg). Thus, when dietary lead absorption is expressed in terms of body weight, it can be calculated that the child would absorb 12 times as much lead as an adult receiving the same diet.

The safety of blood lead levels in the range of  $25-40~\mu g$  Pb/dl has recently been questioned. Early hematologic changes can be seen in women and children when blood lead levels reach  $25-30~\mu g$  Pb/dl. Neurologic changes have not been documented at this low level. No data are available relating blood lead levels to possible adverse effects in children less than one year of age."(24)

# EVALUATION OF THE HAZARD OF 0.5 PERCENT LEAD PAINT

The National Academy of Sciences has concluded that a 0.5 percent level of lead cannot be considered a "safe level". Since NAS claims that no study they have reviewed could estimate a "safe level" of lead in paint, the level of safety associated with 0.5 percent lead in paint was determined by relating measurements found in various source documents. The estimated intake of paint chips in a child with pica for paint were related to adverse effects which had appeared in that child.(25)

The NAS used two methods (Method A and B) for estimating the safety of 0.5 percent lead in paint. They are as follows:

"The potential hazard of ingesting lead-containing paints is related to the average amount absorbed on a daily or weekly basis over a period of months. The percentage of ingested lead that is actually absorbed from the gastrointestinal tract into the body varies according to the chemical and physical form of the ingested lead (i.e., paints, dust, etc.), age and other factors. Differences in the rates of absorption of lead from each source can be largely compensated, if the available data are recalculated as  $\mu g$  Pb absorbed/kg body weight/day. In this way, a resonable estimate of the amount of paint containing 0.5 percent lead necessary to raise Pb-B to a hazardous level can be made. We will use two methods for estimating the hazard of paint containing 0.5 percent lead:

"Method A - The first method of estimating the safety of 0.5 percent lead paint will be made by relating estimated paint intake to fecal lead outputs found in children with blood lead levels (Pb-B)  $\geq$  60  $\mu$ g 'Pb/dl. Pica for paint has been observed to be episodic, occuring up to two to three times per week. The analysis of lead in consecutive fecal samples seems to confirm this observation. Through the use of abdominal x-rays, Sachs has demonstrated that some children with pica for paint are capable of consuming more than 1 gram of paint in the 24-36 hour period preceding the time of x-ray. One child was estimated

to have consumed 20 grams of paint during this time.

"An estimated range of lead intake can be calculated, using a figure of 0.5 percent lead in paint (5000  $\mu g$  Pb/g paint), a figure of 1 gram paint per ingestion and a figure varying from one to three for frequency of ingestions per week. The estimated weekly intake is then divided by seven to obtain an average daily intake. Using these figures, the average daily intakes would be 714  $\mu g$  Pb, 1,429  $\mu g$  Pb and 2,143  $\mu g$  Pb, respectively, for one, two and three ingestions per week.

"It is estimated that 50 percent of lead from foods is absorbed by a young child. However, studies in rats have shown that lead chromate in paint films is not as well absorbed as the simple inorganic salts of lead. Gage and Litchfield estimate that lead chromate pigment in paint is absorbed one-fourth to one-third as well as the simple inorganic salts, when incorporated into standard laboratory rat feed, and that lead napthenate is absorbed about one-half as well. Similarly, lead octoate in dried ground paint, when fed to monkeys, yields Pb-B's one-third to one-half as high as when lead octoate is fed directly. These data incicate that lead compounds, incorporated into a paint matrix, are absorbed only one-fourth to one-half as well as the free lead salts. We will use an average one one-third for estimating a child's absorption of lead from paint. This average is used because a variety of lead compounds are used in paint. Thus, if children absorb 50 percent of dietary lead, experimental data indicate that they will absorb only onethird of this amount or an average of 17% of the lead from paint. Table 4 gives the estimated amounts of lead absorbed and excreted, based on an absorption factor of 17% and estimates of weekly intakes of 1, 2, 3 grams of 0.5 percent paint. Average daily intakes are also calculated on a per kilogram basis for an average two-year-old child weighing 12.5 kg.

Table 4
Calculated Lead Intake and Absorbed Dose from Paint Pica

Amount of Paint Ingested/Week (grams paint	Intake if Paint Contains 0.5 per- cent Pb (5,000)  µg Pb/g paint) (µg Pb/day) (µg Pb/kg/day)*		Amount Absorbed (17 (µg Pb/day)	percent) (μg Pb	Amount Pb Excreted in Feces (83 percent (µg Pb)
1	714	57.1	121	9.7	593
2	1,429	114.3	243	19.4	1,188
3	2,143	171.4	364	29.1	1,779

<sup>\*</sup> For average two-year old child weighing 12.5/kg.

Source: Appendix E of NAS report (30).

"Chisolm and Harrison found a median fecal lead output of 1,110  $\mu$ g Pb/day in asymptomatic children with blood lead levels ≥60 µg Pb/dl and positive roentgenographic evidence of lead storage in bones. Some also had elevations in urinary coproporphyrin levels. Barltrop found fecal lead outputs ranging from 570 -1,900 µg Pb/stool sample in three two-year-old symptomatic children with blood lead levels ranging from 68-92 µg Pb/dl, positive roentgenographic evidence of lead storage and hemoglobin levels < 10 g/dl. From the estimated given in Table 4 and the studies of Chisolm and Harrison and Barltrop and Killala, it appears that the ingestion of between 1 and 2 grams of paint (containing 0.5 percent Pb) per week could produce fecal lead outputs equal to those found in children with ≥60 µg Pb-B. Clinical studies in children have indicated that blood lead levels 260 µg Pb/dl are associated with increased risk of later CNS effects.

In contrast, Alexander's balance studies in eleven health children receiving a normal diet showed a mean lead intake of 10.61 g Pb/kg body weight/day and a mean fecal lead output of 5.13 µg/kg/day. Using the figures from Table 4, a 12.5 kg child consuming one gram of 0.5 percent Pb paint per week would have a daily lead intake of 57.1 µg Pb/kg body weight, a five-fold increase above that found in a normal diet. Two grams of paint would produce an eleven-fold increase and 3 grams, a sixteen-fold increase.

"Since the best available clinical evidence indicates that children with pica can and do ingest 1-3 grams of paint per week and, since the ingestion of between 1 and 2 grams of 0.5 percent lead paint per week would be sufficient to produce daily fecal lead outputs equivalent to those found in children with  $\geq 60$   $\mu$ g Pb-B, a level of 0.5 percent lead in paint cannot be considered a "safe level."

"Method B - An alternative method for determining the safety of 0.5 percent lead paint is based on the absorption studies carried out by Kehoe on adult volunteers. Kehoe found that blood lead levels increased 17 μg/dl over a period of nine months for each additional mg of lead administered per day. Lead acetate or lead chloride were administered with the diet at dosages of 0.3, 1.0, 2.0 and 3.0 mg Pb/day. Increases in blood lead levels were proportional to dosage. For the sake of simplicity, we will discuss the subject receiving 1.0 mg Pb/day. An observed intestinal absorption rate of 10 percent resulted in an absorption of 100 µg Pb/day. Calculated on a body weight basis for a standard 70 kg man, this represented 1.43 μg Pb absorbed/kg/day. Thus, the absorption of 1,43  $\mu$ g Pb/kg/day would be sufficient to produce a rise in blood lead of 17  $\mu$ g/dl and an absorption of 2.86  $\mu$ g Pb/kg/day could produce a rise of 34  $\mu q/dl$ . Similar increments in blood lead concentration have recently been reported by Stuik who has administered lead acetate at 20 µq Pb/kg/day to 5 adult male and 5 adult female volunteers over a period of 12 weeks. If one assumes an absorption of 10% of the dose, the rate recently found by Rabinowitz et al, then these healthy volunteers would have absorbed  $2.0 \mu g$  Pb/ kg/day. In Stuik's subjects, blood lead concentrations increased by 17.7  $\mu$ q Pb/dl in the females and 20.3  $\mu$ q Pb/dl in the males after 2-1/2 weeks.

"The average blood lead level in normal unexposed children is approximately 20  $\mu \rm g$  Pb/dl. Early metabolic changes in the hematologic system begin to occur in children when blood lead levels reach the range of 30-40  $\mu \rm g$  Pb/dl. From the standpoint of preventive medicine, it would seem appropriate to insure that mean blood lead levels for groups do not exceed 20  $\mu \rm g$  Pb/dl. An additional daily absorption of 1.43  $\mu \rm g$  Pb/kg/day could increase blood lead levels from 20  $\mu \rm g$  Pb/dl to 37  $\mu \rm g$  Pb/dl, while an additional absorption of 2.86  $\mu \rm g$  Pb/kg/day could increase levels to 54  $\mu \rm g$  Pb/dl.

"Based on an absorption factor of 17 percent for lead in paint, Table 5 shows the amount of lead intake necessary to produce absorption of either 1.43

 $\mu$ g/kg/day or 2.86  $\mu$ g/kg/day. Total daily intakes are also calculated for an average one-year 10 kg child and a two-year-old 12.5 kg. child.

Table 5

Calculated Daily External Dose and Associated Internal Dose

Increase in Blood Lead (Pb-B)	Lead Absorbed Each Day	Necessary Intake to Produce Corresponding Absorption*	Total Intake Necessary for 10 kg child	Total Intake Necessary for 12.5 kg child
(µq/dl)	(µg Pb/kg/day)	(µa Pb/kq/day)	(µg Po/day)	(µg Fb/day)
17	1.43	8.41	84.1	105.1
34	2.86	16.82	168.2	210.3

\*Based on absorption factor of 17 percent for lead in paint.

Absorption of lead from foods is approximately 50 percent.

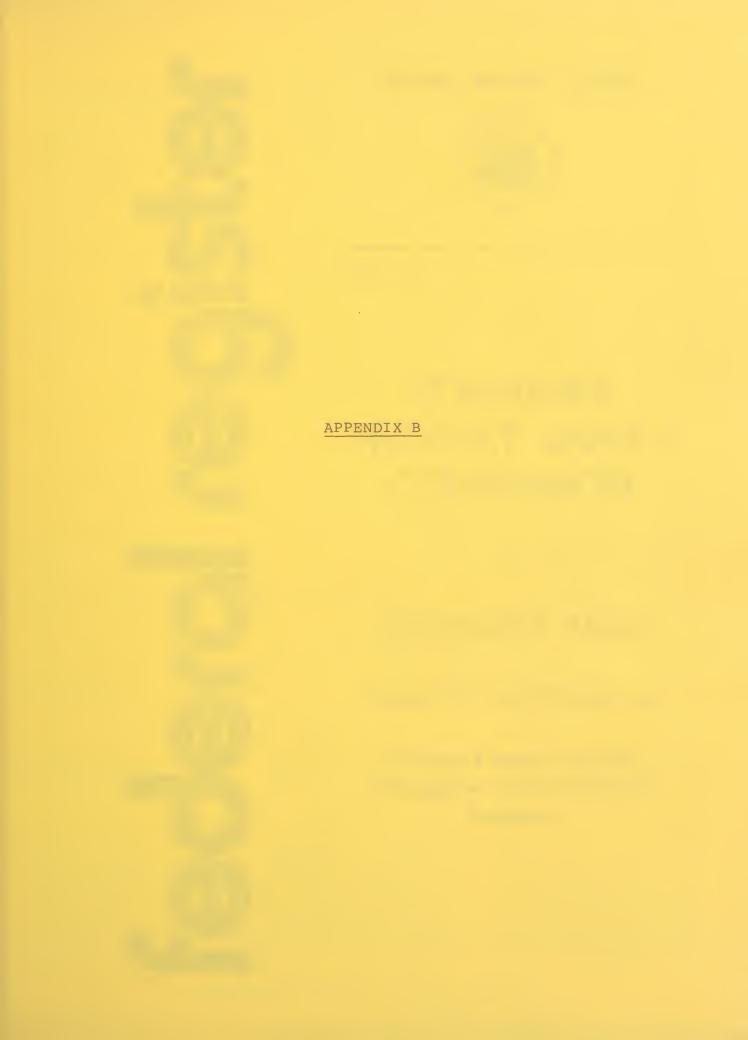
Source: Appendix E of NAS report (30).

The safety of 0.5 percent lead paint can be determined from Table 5. The ingestion of 16.82 mg paint/ day or 33.64 mg paint per day containing 0.5% lead would result in raising blood levels by  $17 \mu g/dl$  or  $34 \mu g/dl$ , respectively, in a 10 kg child. Similarly, a 12.5 kg child would need to ingest either 21.02 mg paint/day or 42.06 mg paint per day. King and Schaplowsky have summarized the work of Sachs wherein she demonstrated that some children can consume more than 1 g (1,000 mg) paint per week of 143 mg paint per day. For a child with pica for paint, a level of 0.5 percent lead in paint clearly represents a hazard.

Because multiple factors serve to modify lead intake, absorption rates and individual susceptibility, the foregoing mathematical calculations used for determining the hazard of 0.5 percent lead paint, cannot be considered suitable for application to every child. Age, frequency of pica, dietary constituents, and nutritional status all contribute toward increasing or decreasing the amount of lead absorbed by any one individual.

The first method used for determining the hazard of 0.5 percent lead paint is based on relating lead intake to the appearance of early clinical illness and significant risk of later CNS effects. The second method relates lead intake to blood lead levels known to be associated with the appearance of early metabolic effects in children. In either case, a level of 0.5 percent lead in paint cannot be considered a 'safe level.'"(26)







TUESDAY, AUGUST 10, 1976



PART III:

# CONSUMER PRODUCT SAFETY COMMISSION

# LEAD-BASED PAINT

Hearing: Safe Level Determination

Consumer Products; Proposed
Promulgation and Revocation of
Regulations

# CONSUMER PRODUCT SAFETY COMMISSION

### **LEAD-BASED PAINT**

### **Hearing To Determine Safe Level**

The purpose of this notice is to commence a proceeding under the 1976 amendments to the Lead-Based Paint Poisoning Prevention Act whereby the Consumer Product Safety Commission will determine a "safe level" of lead in paint. The Commission determination of a safe level of lead in paint will be based on all available data and information after providing an opportunity for an oral hearing and after considering recommendations of the Secretary Health, Education, and Welfare (including those of the Center for Disease Control) and of the National Academy of Sciences. The proceedings will involve a determination of whether a level of lead in paint which is greater than 0.06 percent but not in excess of 0.5 percent is safe.

### BACKGROUND

On June 23, 1976, the Lead-Based Paint Poisoning Prevention Act (LBPPPA), (42 U.S.C. 4801 et seq.), was extended and revised by enactment of the National Consumer Health Information and Health Promotion Act of 1976, Pub. L. 94-317 (90 Stat. 705-706). The LBPPPA, as amended, among other things, directs the Department of Health, Education, and Welfare to take action with respect to lead-based paint on cooking, eating, and drinking utensils; the Department of Housing and Urban Development to take action with respect to lead-based paint in residential structures constructed or rehabilitated by the Federal Government or with Federal assistance: and the Consumer Product Safety Commission (Commission or CPSC) to "take such steps and impose such conditions as may be necessary or appropriate to prohibit the application of lead-based paint to any toy or furniture article" (sec. 401, 90 Stat. 705).

The term "lead-based paint" is defined in section 501 of the LBPPPA, as amended by Pub. L. 94-317 (90 Stat. 706), as paint containing more than 0.5 percent lead by weight (calculated as lead metal) in the total nonvolatile content of the paint, or the equivalent measure of lead in the dried film of paint already applied, or both.

Section 501(3) provides that if the CPSC determines that another level of

lead is safe which is greater than 0.06 percent, but not over 0.5 percent, the term "lead-based paint," with respect to paint manufactured after the expiration of the 6-month period beginning on the date of the Commission's determination, means paint containing by weight (calculated as lead mteal) in the total nonvolatile content of the paint, more than the level of lead determined by the Commission to be safe, or the equivalent measure of lead in the dried film of paint already applied, or both.

Section 501(3)(B)(ii) also provides that if the definition of the term "lead-based paint" has not been established by a Commission determination, the term means, with respect to paint which is manufactured after the expiration of the 12-month period beginning on June 23, 1976, paint containing more than 0.06 percent lead by weight (calculated as lead metal) in the total nonvolatile content of the paint, or the equivalent measure of lead in the dried film of paint already applied, or both.

Procedurally, the amended LBPPPA provides that the Commission shall make its determination of a safe level of lead in paint during a 6-month period beginning on the date of enactment of the amendments (June 23, 1976.) The determination is to be made on the basis of available data and information, after providing opportunity for an oral hearing, and after considering recommendations of the Secretary of Health, Education, and Welfare (including those of the Center for Disease Control) and of the National Academy of Sciences. Letters requesting these recommendations will soon be transmitted.

## PUBLIC HEARING

The oral hearing in this matter is open to all interested members of the public and is scheduled to be conducted on September 13, 1976, from 9:30 a.m. to 5:00 p.m., and on September 14, 1976, from 9:00 a.m. to 5:00 p.m. Any change in these dates will be announced in the FEDERAL REGISTER. The hearing will be held in the General Services Administration Auditorium, 18th and F Streets, NW, Washington, D.C.

Persons wishing to make oral presentations should contact the Office of the Secretary by telephone (202-634-7700) or in writing (Consumer Product Safety Commission, Washington, D.C. 20207) at least 10 days before the proceeding

so that scheduling arrangements can be made.

Presentations will be limited to matters relevant to a determination of a safe level of lead in paint, and any potential technological, economic and environmental effects of lowering the level. In addition, presentations may be made relevant to the proposal to declare "leadbased paint," as determined by this proceeding or by operation of law, as well as certain other articles bearing such paint, as "banded hazardous products" under the Consumer Product Safety Act (15 U.S.C. 2051 et seq.), and the proposal to revoke a regulation (16 CFR 1500.17 (a)(6)) under the Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.), as discussed in separate notices also in this issue of the FEDERAL REGISTER. (See FR Docs. 76-23112 and 76-23113, infra.)

The regulations for oral presentations regarding proposed consumer product safety rules, 16 CFR Part 1109, issued by the Commission on October 14, 1975 (40 FR 48122), shall govern this proceeding. Copies of these regulations may be obtained from the Office of the Secretary. Oral testimony will be presented to the Commission with Chairman S. John Byington acting as presiding officer. The presiding officer and the Commission may direct questions to persons testifying. In addition, the presiding officer will, to the extent practicable, permit questions from interested persons and Commission staff members to be presented to persons testifying.

In addition to making oral presentations, interested persons may also submit relevant written material, including data, views, and arguments. Such material should be submitted, preferably in five copies, addressed to the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207, before the close of business, September 24, 1976. Received submissions may be inspected in the Office of the Secretary, 8th Floor, 1750 K Street NW., Washington, D.C., during working hours Monday through Friday.

The determination of a safe level of lead in paint shall be announced as soon as practicable by notice published in the FEDERAL REGISTER upon completion on these proceedings.

Dated: August 4, 1976.

SADYE E. DUNN, Secretary, Consumer Product Safety Commission.

[FR Doc.76-23111 Filed 8-9-76;8:45 am]

### CONSUMER PRODUCT SAFETY COMMISSION

[ 16 CFR Parts 1145, 1150 ]

LEAD-BASED PAINT AND CERTAIN CON-SUMER PRODUCTS BEARING LEAD BASED PAINT

**Proposed Regulation Under the Consumer** Product Safety Act as Banned Hazardous

The purpose of this document is to propose regulating lead-based paint and certain other consumer products bearing such paint under the Consumer Product Safety Act (CPSA), 15 U.S.C. 2051 et seq., rather than the Federal Hazardous Substances Act (FHSA), 15 U.S.C. 1261 et seq., and to propose a regulation under the CPSA declaring banned hazardous products (1)lead-containing paint and similar surface-coating materials containing more than a safe level of lead, (2) and other articles intended for use by children bearing lead-containing paint or other similar surface-coating materials containing more than a safe level of lead, and (3) articles of furniture bearing lead-containing paint or other similar surface-coating materials containing more than a safe level of lead.

### BACKGROUND

As discussed in more detail in a separate document in this issue of the FED-ERAL REGISTER, (See FR Doc. 76-23111, supra) the Consumer Product Safety Commission (Commission or CPSC), pursuant to the Lead-Based Paint Poisoning Prevention Act (LBPPPA), 42 U.S.C. 4801 et seq., as amended by the National Consumer Health Information and Health Promotion Act of 1976 (Pub. L. 94-317, 90 Stat. 705-706) has commenced a proceeding to determine whether a level of lead greater than 0.06 percent but not more than 0.5 percent is safe. If the Commission makes a determination within this range, then under the amended LBPPPA, paint with lead above that level will be considered "lead-based paint" for purposes of administration of the LBPPPA, effective 6 months after the date of such determination. If the Commission makes no determination within that range, the present limit of lead in paint of 0.5 percent will be lowered automatically by statute to 0.06 percent as applied to paint manufactured after the expiration of the 12-month period commencing June 23, 1976, the date of enactment of Public Law 94-317 amending the LBPPPA. The Commission is also directed by the amended LBPPPA to "take such steps and impose such conditions as may be necessary or appropriate to prohibit the application of lead-based paint to any toy or furniture article" (sec. 401(c), 90 Stat. 705).

In addition to its responsibilities under under the LBPPPA, the Commission also regulates lead paint and certain articles bearing such paint under the FHSA. Issued under the authority of the FHSA, 16 CFR 1500.17(a) (6) (i) declares as banned hazardous substances, "any paint or other similar surface-coating material intended, or packaged in a form suitable for use in or around the household that:

(A) Is shipped in interstate commerce after December 31, 1973, and contains lead compounds of which the lead content (calculated as the metal) is in excess of 0.06 percent of the total weight of the contained solids or dried paint film; or

(B) Is shipped in interstate commerce after December 31, 1972, and contains lead compounds of which the lead content (calculated as the metal) is in excess of 0.5 percent of the total weight of the contained solids or dried paint film.

(D) The provisions of paragraph (a) (6) (1) of this section do not apply to artists' paints and related materials.

In addition to the ban on paint and other similar surface coatings in paragraph (a) (6) (i), paragraph (a) (6) (ii) declares as banned hazardous substances the following:

(ii) Any toy or other article intended for

use by children that:
(A) Is shipped in interstate commerce after December 31, 1973, and bears any paint or other similar surface-coating material containing lead compounds of which the lead content (calculated as the metal) is in excess of 0.06 percent of the total weight of the

contained solids or dried paint film; or
(B) Is shipped in interstate commerce after December 31, 1972, and bears any paint or other similar surface-coating material containing lead compounds of which the lead content (calculated as the metal) is in excess of 0.5 percent of the total weight of the contained solids or dried paint film.

Because of objections filed to the provision lowering the level to 0.06 percent, the Food and Drug Administration (FDA) on August 10, 1972 (37 16078), pursuant to section 701(e) of the Federal Food, Drug, and Cosmetic Act (FDCA), 21 U.S.C. 371(e), stayed the portions of the regulation lowering the level to 0.06 percent. The 0.5 percent level was unaffected.

On May 14, 1973, functions under the FHSA were transferred from FDA to CPSC and on December 27, 1973 (38 FR the Commission amended § 1500.17(a) (6) to continue the 0.5 percent level pending completion of animal studies underway regarding the toxicity of paint containing lead. The Commission, on December 9, 1974 (39 FR 42902), again amended the regulation to continue the 0.5 percent level pending the results of ongoing research, which included a report being prepared by the National Academy of Sciences (NAS). Thus, at the present time, under \$ 1500.17(a) (6), the 0.5 percent level remains in effect, and the 0.06 percent provisions are stayed.

In addition to the ongoing FHSA regulatory activity in this matter, Consumers Union filed a petition on February 24, 1975, requesting the Commission to issue a regulation under the FHSA banning household paint and toys or other children's articles bearing paint containing more than 0.06 percent of lead. The petition also requests the Commission to take action under the CPSA to achieve a similar result. To date no action has been taken by the Commission on the petition because the Commission has been await-

ing the final NAS report on lead-containing paint.

Thus, the Commission has responsibilities under the amended LBPPPA to determine a safe level of lead in paint and to prohibit application of lead-based paint to toys and furniture. This determination under the LBPPPA will affect the regulation of lead-containing paint used in residential structures constructed or rehabilitated by the Federal Government or with Fedreal assistance and lead paint on cooking, eating, and drinking utensils. Moreover, the Commission is responsible under the FHSA for regulating lead-containing paint for use in or around households and certain other articles bearing such paint and has before it a petition under both the FHSA and the CPSA to lower the permissible level from 0.5 to 0.06 percent.

As mentioned previously, the provisions of § 1500.17(a) (6) regarding leadcontaining paint above the 0.06 percent level have been stayed because of objec-The rulemaking procedures involved (21 U.S.C. 371(e)) require the conduct of evidentiary hearings once objections have been filed to a regulation. Under the CPSA, an opportunity for an oral hearing is required before issuance of a consumer product safety rule. Also, as noted above, under the LBPPPA, an oral hearing is required to be conducted before the Commission's determination of a safe level of lead. Thus, if the Commission were to proceed independently under more than one of these acts, it would be required to hold public hearings on essentially the same subject matter. Accordingly, the Commission has decided to consolidate the proceedings under the various acts.

Section 30(d) of the CPSA (15 U.S.C 2079(d)), as amended by the Consumer Product Safety Commission Improve-ments Act of 1976 (Pub. L. 94–284; 90 Stat. 510), provides for certain regulatory actions to proceed under the CPSA rather than the FHSA and reads as follows:

(d) A risk of injury which is associated with a consumer product and which could be eliminated or reduced to a sufficient extent by action under the Federal Hazardous Substances Act, the Poison Prevention Packaging Act of 1970, or the Flammable Fabrics Act may be regulated under this Act only if the Commission by rule finds that it is in the public interest to regulate such risk of injury under this Act. Such a rule shall identify the risk of injury proposed to be regulated under this Act and shall be promulgated in accordance with section 553 of the title 5, United States Code, except that the period to be provided by the Commission pursuant to subsection (c) of such section for submission of data, views, and arguments respecting the rule shall not exceed thirty days from the date of publication pursuant to subsection (b) of such section of a notice respecting the rule.

Pursuant to section 30(d) of the CPSA, the Commission believes that the public interest requires the regulation of leadcontaining paint, and certain other consumer products bearing such paint under provisions of the CPSA rather than the FHSA. Because the Commission is obligated under the amended LBPPPA to make its determination of a safe level of lead in paint within 6 months after June 23, 1976, proceeding under the FHSA at the same time is unfeasible because of the time-consuming nature of hearings that would be conducted under section 701(e) of the FDCA. (See 21 U.S.C. 371(e) and 21 CFR 2.48 et seq.) Moreover, the complex nature of the FHSA proceedings might tend to deter interested parties from participating to the extent possible under the LBPPPA and the CPSA.

On the other hand, section 9 of the CPSA (15 U.S.C. 2058), which governs the issuance of consumer product safety rules, requires notice of proposal with opportunity for submitting written comments in accordance with 5 U.S.C. 553, with the added requirement that interested persons be given an opportunity for the oral presentations of data, views, or arguments. The requirements for oral presentation of views under the CPSA and the requirements for an oral hearing under the LBPPPA are compatible and may be consolidated procedurally because both hearings are informal.

Therefore, since the risk of injury addressed in both proceedings involves determination of a level of lead which would be permitted in paint, the Commission concludes that the public interest would be served by resolving all related questions in one proceeding whereby all interested members of the public would be able to present their information and views at one time. A regulation (16 CFR Part 1145) is proposed below, pursuant to section 30(d) of the CPSA, to provide for regulating leadbased paint and certain other consumer products bearing such paint under the CPSA, rather than the FHSA.

Under the CPSA the Commission is authorized to, among other things, issue consumer product safety standards pursuant to sections 7 and 9 of the act and to issue rules under sections 8 and 9 of the act declaring products to be banned hazardous products. A product may be declared a banned hazardous product if the Commission finds that it presents an unreasonable risk of injury and that no feasible consumer product safety standard under the CPSA would adequately protect the public from the risk of injury presented. The scope of product coverage under the CPSA is defined and limited by the definition of "consumer product" in section 3(a)(1) of the act (15 U.S.C. 2052(a)(1)), Except for certain specific exclusions, a "consumer product" includes any article, or component part thereof, produced or distributed for sale to, or for the personal use, consumption, or enjoyment of, a consumer in or around a permanent or temporary household or residence, a school, in recreation, or otherwise. Thus, coverage under the CPSA is similar to, but somwhat broader than, coverage under the FHSA, which includes articles intended or packaged for use in or around the household plus toys or other articles intended for use by children.

As specified above, the currently effective provisions of § 1500.16(a) (6) under the FHSA already ban paint and other similar surface-coating material for household use containing more than 0.5 percent of lead and toys or other articles for children bearing such paint or similar surface-coating material. Thus, regulating such products under the CPSA amounts to simply a transfer of the regulations from the authority of the FHSA to the CPSA. A notice proposing revocation of § 1500.17(a)(6) is therefore published elsewhere in this issue of the FEDERAL REGISTER. (See FR Doc. 76-23113, infra.)

Regarding lead-containing paint and certain other consumer products bearing such paint not currently subject to § 1500.17(a) (6), the Commission believes that the Congressional intent expressed in the amended LBPPPA is for all paint for consumer use containing lead in excess of what is determined to be a safe level under the LBPPPA proceedings, and certain other consumer products bearing lead-containing paint, to be considered as presenting an "unreasonable risk of injury" as that term is used in sections 8 and 9 of the CPSA. This intent is manifested in the LBPPPA by the provisions directing this and other Federal agencies to take certain regulatory actions with respect to lead-based paint, including the specific provision directing the CPSC to prohibit the application of lead-based paint to any toy or furniture article.

With respect to the directions to the Department of Housing and Urban Development, "lead-based paint" as defined in the LBPPPA has already been found to be unsafe for use in housing constructed or rehabilitated by the Federal Government, or with Federal assistance in any form. The Department of Health, Education, and Welfare has been mandated to prohibit the application of "lead-based paint" as defined in the LBPPPA to any cooking utensil, drinking utensil, or eating utensil. Therefore, since paint containing lead above certain levels has been deemed unsafe by Congress for these certain uses, the Commission concludes that it is also unsafe for other similar consumer and nonfederally-assisted housing uses and that it presents an unreasonable risk of injury.

### FINDINGS

Accordingly, the Commission preliminarily finds the following to present an unreasonable risk of injury:

1. Paint and other similar surfacecoating materials that contain lead compounds of which the lead content (calculated as the metal) is in excess of the percent of lead found under the LBPPPA proceeding to be safe.

2. Toys and other articles intended for use by children that bear any paint or similar surface-coating materials in excess of the percent of lead found under to LBPPPA proceeding to be safe.

3. Articles of furniture that bear any paint or similar surface-coating materials in excess of the percent of lead found under the LBPPPA proceeding to be safe.

In addition to the finding of unreasonable risk of injury required to initiate rulemaking under sections 8 and 9 of the CPSA, the Commission, to propose a consumer product safety rule declaring a consumer product a banned hazardous product, must find that no feasible consumer product safety standard under the CPSA would adequately protect the public from the unreasonable risk of injury associated with such product. With respect to declaring as banned hazardous products certain consumer products containing or bearing paint containing lead in excess of a specific level, the Commission also finds preliminarily that known technology cannot make such paint safe. Accordingly, the Commission finds that a consumer product safety standard for paint containing more than a safe level of lead is unfeasible and unlikely to serve as adequate protection of the public.

### PROPOSAL

The Commission therefore proposes below to declare that certain lead-containing paints and similar lead-containing surface-coating materials, and toys and articles of furniture bearing such paints or coating materials, are banned hazardous products.

Accordingly, pursuant to provisions of the Consumer Product Safety Act (secs. 8, 9, 30(d), 86 Stat. 1215–17, 1231, as amended 90 Stat. 506, 510; 15 U.S.C. 2057, 2058, 2079(d)), the Commission proposes that Title 16, Chapter II, be amended by adding to Subchapter B the following new Parts 1145 and 1150:

# PART 1145—REGULATION OF PRODUCTS SUBJECT TO OTHER ACTS UNDER THE CONSUMER PRODUCT SAFETY ACT

1145.1 Scope.

1145.2 Paint (and other similar surfacecoating materials) containing lead; toys, children's articles, and articles of furniture bearing such paint (or similar surface-coating materials); risk of lead poisoning.

AUTHORITY: Sec. 30(d), 86 Stat. 1231, as amended, 90 Stat. 510; 15 U.S.C. 2079(d).

### § 1145.1 Scope.

This Part 1145 sets forth risks of injury associated with consumer products that could be eliminated or reduced to a sufficient extent by action under the Federal Hazardous Substances Act (15 U.S.C. 1261-1274), the Poison Prevention Packaging Act of 1970 (15 U.S.C. 1471-1476), or the Flammable Fabrics Act (15 U.S.C. 1191-1204), but for which, pursuant to section 30 (d) of the Consumer Product Safety Act, the Consumer Product Safety Commission has, by rule, found that it is in the public interest to institute a regulatory action under the Consumer Product Safety Act.

§ 1145.2 Paint (and other similar surface-coating materials) containing lead; toys, children's articles, and articles of furniture bearing such paint (or similar surface-coating materials); risk of lead poisoning.

(a) The Commission finds that it is in the public interest to regulate the risk of lead poisoning to young children from the ingestion of paint and other similar surface-coating materials under the Consumer Product Safety Act rather than under the Federal Hazardous Substances Act because of the desirability of consolidating the public procedures related to such regulation with the procedure under the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4801 et seq.), as amended by the National Consumer Health Information and Health Promotion Act of 1976 (Pub. L. 94-317; 90 Stat. 705-706), for the determination of a safe level of lead. Consolidation of these proceedings will facilitate greater public participation and a more expeditious resolution of the issues.

(b) Paint and other similar surface-coating materials containing lead and toys, children's articles, and articles of furniture bearing such paint or other similar surface-coating materials that present a risk of lead poisoning to young children by ingestion shall therefore be regulated under the Consumer Product Safety Act. Such regulation shall include all directly related pending and future rulemaking, as well as all directly related pending and future action on petitions.

## PART 1150—BANNED HAZARDOUS PRODUCTS

1150.1 Scope.

1150.5 Lead-containing paint and other similar surface-coating materials.
 1150.6 Toys and other articles intended for use by children bearing lead-con-

taining paint or other similar surface-coating materials.

1150.7 Articles of furniture bearing leadcontaining paint or other similar surface-coating materials.

AUTHORITY: Secs. 8, 9, 86 Stat. 1215-1217, as amended, 90 Stat. 506; 15 U.S.C. 2057, 2058.

### § 1150.1 Scope.

This Part 1150 sets forth the regulations whereby the Consumer Product Safety Commission declares certain consumer products to be banned hazardous products under section 8 of the Consumer Product Safety Act (15 U.S.C. 2057) on the basis that (a) the consumer product is being, or will be, distributed in commerce; (b) such consumer product presents an unreasonable risk of injury; and (c) no feasible consumer product safety standard under said act would adequately protect the public from the unreasonable risk of injury associated with such product.

### § 1150.5 Lead-containing paint and other similar surface-coating materials.

On the basis that the dried film of such consumer products presents the hazard to young children of lead poisoning upon ingestion, paint, and other similar surface-coating materials that contain lead

compounds of which the lead content (calculated as the metal) is in excess of (the level, expressed as a percentage, to be determined "safe" by CPSC under proceedings conducted in accordance with the provisions of the Lead-Based Paint Poisoning Prevention Act, as amended by the National Consumer Health Information and Health Promotion Act of 1976 (Pub. L. 94–317; 90 Stat. 705–706)) of the total weight of the contained solids or dried paint film are banned hazardous products, except for the following:

(a) Artists paint and related materials.

§ 1150.6 Toys and other articles intended for use by children bearing lead-containing paint or other similar surface-coating materials.

On the basis that the dried film from paint or other similar surface-coating materials on such consumer products presents the hazard to young children of lead poisoning upon ingestion, toys and other articles intended for use by children that bear any paint or other similar surface-coating material containing lead compounds of which the lead content (calculated as the metal) is in excess of (the level, expressed as a percentage, to be determined "safe" by CPSC under proceedings conducted in accordance with the provisions of the Lead-Based Paint Poisoning Prevention Act, amended as stated in § 1150.6 above) of the total weight of the contained solids or dried paint film are banned hazardous prod-

# § 1150.7 Articles of furniture bearing lead-containing paint or other similar surface-coating materials.

On the basis that the dried film from paint or other similar surface-coating materials on such consumer products presents the hazard to young children of lead poisoning upon ingestion, articles of furniture that bear any paint or other similar surface-coating material containing lead compounds of which the lead content (calculated as the metal) is in excess of (the level, expressed as a percentage, to be determined "safe" by CPSC under proceedings conducted in accordance with the provisions of the Lead-Based Paint Poisoning Prevention Act, amended as stated in § 1150.6 above) of the total weight of the contained solid or dried paint film are banned hazardous products.

Regarding proposed Part 1145, interested persons are invited to submit written comments on or before September 9, 1976. Comments may be accompanied by written data, views, and arguments and should be submitted, preferably in five copies, addressed to the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207. Received comments and other related material may be seen in the Office of the Secretary, 8th Floor, 1750 K Street NW., Washington, D.C., during working hours Monday through Friday.

Regarding proposed Part 1150, interested persons are invited to submit written comments before the close of business, September 24, 1976. Comments may be accompanied by written data,

views, and arguments and should be submitted, preferably in five copies, addressed to the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207. Received comments and other related material may be seen in the Office of the Secretary, 8th floor, 1750 K Street NW., Washington, D.C., during working hours Monday through Friday.

In the matter of proposed Part 1150, an oral hearing open to all interested members of the public is scheduled to be conducted on September 13, 1976, from 9:30 a.m. to 5 p.m. and on September 14, 1976, from 9 a.m. to 5 p.m. Any change in these dates will be announced in the FEDERAL REGISTER. The hearing will be held in the General Services Administration Auditorium, 18th & F Streets NW., Washington, D.C. The hearing in this matter is to be consolidated with the hearing on the determination under the Lead-Based Paint Poisoning Prevention Act of a safe level of lead announced separately in this issue of the FEDERAL REGISTER. A written transcript of the proceedings will be prepared. The regulations for oral presentations, 16 CFR Part 1109, issued by CPSC on October 14, 1975 (40 FR 48122), shall govern this proceeding. Copies of these regulations may be obtained from the Office of the Secretary. Oral testimony will be presented to the Commission with Chairman S. John Byington acting as presiding officer. The presiding officer and the Commission may direct questions to persons testifying. In addition, the presiding officer will, to the extent practicable, permit questions from interested persons and Commission staff members to be presented to persons testifying.

Persons wishing to make oral presentations should contact the Office of the Secretary by telephone (202-634-7700) or in writing (Consumer Product Safety Commission, Washington, D.C. 20207) at least 10 days before the proceeding so that scheduling arrangements can be made. Oral presentations as well as written comments will be limited to matters relevant to a determination of a safe level of lead in paint and any technological, economic, and environmental effects of lowering the level. In addition, written comments and oral presentations may be made relevant to the instant proposal under the Consumer Product Safety Act and the revocation of regulations CFR 1500.17(a)(6)) under the Federal Hazardous Substances Act, also proposed in this issue of the FEDERAL REGISTER.

In particular, with respect to proposed Part 1150, the Commission solicits data, information, views, and arguments as to the following:

1. The degree and nature of the risk of injury the rule is designed to eliminate or reduce.

2. The approximate number of consumer products, or types or classes thereof, subject to such rule.

3. The need of the public for the consumer product subject to such rule and the probable effect of such rule upon the utility, cost, or availability of such products to meet such need.

4. Any means of achieving the objective of the rule while minimizing adverse

effects on competition or disruption or dislocation of manufacturing and other commercial practices consistent with the public health and safety.

5. The necessity of the rule to eliminate or reduce the unreasonable risk of injury associated with the consumer products subject to the rule.

6. Whether the rule is in the public

interest.

7. The feasibility of a consumer product safety standard under the CPSA to protect the public adequately from the unreasonable risk of injury associated with lead in paint above the safe level.

8. The potential environmental effects of the rule.

In making its final decision on the rules proposed herein, the record shall consist of all information available to the Commission, whether obtained during the course of this proceeding or outside of this proceeding.

Dated: August 4, 1976.

SADYE E. DUNN, Secretary, Consumer Product Safety Commission.

[FR Doc.76-23112 Filed 8-9-76:8:45 am]

### [ 16 CFR Part 1500 ]

CERTAIN LEAD-CONTAINING PAINT; TOYS
AND OTHER ARTICLES BEARING SUCH
PAINT INTENDED FOR USE BY CHIL-DREN

### **Proposed Revocation of Regulation**

The purpose of this document is to propose revoking a regulation (16 CFR 1500.17(a) (6)) under the Federal Hazardous Substances Act (FHSA), (15 U.S.C. 1261 et seq.), declaring certain lead-containing paint, and toys or other articles intended for use by children bearing such paint, to be banned hazardous substances.

### BACKGROUND

Elsewhere in this issue of the FEDERAL REGISTER, (See FR Doc. 76-23112, supra) regulations (16 CFR Part 1150) are proposed under the Consumer Product Safety Act (CPSA), (15 U.S.C. 2051 et seq.), declaring as banned hazardous products: (1) Lead-containing paint and similar surface-coating materials containing more than a safe level of lead, (2) Toys and other articles intended for use by children bearing lead-containing paint or other similar surface-coating materials containing more than a safe level of lead, and (3) Articles of furniture bearing lead-containing paint or other similar surface-coating materials containing more than a safe level of lead.

A determination of a "safe level of lead" will be made by the Consumer Product Safety Commission under the Lead-Based Paint Poisoning Prevention Act (LBPPPA), (42 U.S.C. 4801 et seq.), as amended by the National Consumer Health Information and Health Promotion Act of 1976 (Pub. L. 94-317, 90 Stat. 705-706). This determination, based on proceedings announced in a separate notice in this issue of the FEDERAL REGISTER, involve consideration of whether a level of lead in paint which is greater than 0.06 percent but not in excess of 0.5 percent is safe. (See FR Doc. 76-23111,

Currently, 16 CFR 1500.17(a) (6) under the FHSA declares as banned hazardous substances any paint or other similar surface-coating material that contains lead compounds of which the lead content (calculated as the metal) is in excess of 0.5 percent of the total weight of the contained solids or dried paint film. Section 1500.17(a) (6) also declares as banned hazardous substances any toy or other article intended for use by children that bears such paint or coating ma-

Section 1500.17(a) (6) also contains certain provisions (subdivisions (i) (A) and (ii) (A)) that were stayed as a result of objections filed pursuant to section 701(e) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 371(e)). The stayed provisions would have lowered the 0.5 percent permitted level of lead to 0.06 percent. Thus, only the 0.5 percent level prescribed by § 1500.17(a) (6) is in effect. (See FEDERAL REGISTER documents of August 10, 1972 (37 FR 16078), December 27, 1973 (38 FR 35302), and December 9, 1974 (39 FR 42902)).

As the two associated CPSC documents also in this FEDERAL REGISTER indicate, the Commission is presently commencing action to determine a "safe level of lead" under the LBPPPA and proposing ing paint under the CPSA. These CPSA to establish regulations for lead-containregulations, when issued, would render the FHSA regulation (§ 1500.17(a) (6)) obsolete and unnecessary.

PROPOSAL

§ 1500.17 [Amended]

Accordingly, pursuant to provisions of the Federal Hazardous Substances Act (sec. 2 (f) (1) (A), (q), 74 Stat. 372, 374, as amended by 80 Stat. 1304-05; (15 U.S.C. 1261(f) (1)(A), (q))) and the Federal Food, Drug, and Cosmetic Act (section 701 (e), (f), (g), 52 Stat. 1055-56, as amended 70 Stat. 919, 72 Stat. 948; (21 U.S.C. 371 (e), (f), (g)) and under authority yested in the Commission by the Consumer Product Safety Act (sec. 30 (a), 86 Stat. 1231; (15 U.S.C. 2079(a))), the Commission proposes to amend 16 CFR Part 1500 by revoking § 1500.17(a)

In its proposal to replace § 1500.17(a) (6) by regulations promulgated under the CPSA, the Commission has included in the proposed CPSA regulations amendments and exemptions presently contained in § 1500.17(a) (6). Any outstanding proposals under the FHSA to amend § 1500.17(a) (6) shall, upon promulgation of the CPSA regulations, (be transferred to the authority of, and acted upon under, the CPSA. Any outstanding petitions to amend \$ 1500.17(a) (6) shall also, upon promulgation of the CPSA regulations. be transferred and considered under that

The effective date of the proposed revocation of § 1500.17(a) (6), if promulgated, will be the same as the effective date of the CPSA regulations replacing

Interested persons are invited to submit, on or before September 24, 1976, written comments regarding this proposal. Written comments and any accompanying data or material should be submitted, preferably in five copies, addressed to the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207. Comments may be accompanied by a memorandum or brief in support thereof. Received comments may be seen in the Office of the Secretary, 8th floor, 1750 K Street NW., Washington, D.C., during working hours Monday through Friday.

Dated: August 4, 1976.

SADYR E. DUNN. Secretary, Consumer Product Safety Commission.

[FR Doc.76-23113 Filed 8-9-76;8:45 am]





WEDNESDAY, OCTOBER 6, 1976



PART III:

# CONSUMER PRODUCT SAFETY COMMISSION

LEAD-BASED PAINT

Consumer Products; Proposed
Promulgation and Revocation of
Regulation; Extension of Comment Periods

Hearing: Safe Level Determination

# CONSUMER PRODUCT SAFETY COMMISSION

[ 16 CFR Part 1150 ]

LEAD-BASED PAINT AND CERTAIN CON-SUMER PRODUCTS BEARING LEAD-BASED PAINT

Banned Hazardous Products; Extension of Date for Filing Comments; Extension of Date for Promulgating Rule or Withdrawing Proposed Rule

The purpose of this notice is to announce the extension until April 1, 1977, of the period of time within which the Consumer Product Safety Commission is required to either promulgate or withdraw the consumer product safety rule regarding lead-based paint proposed on August 10, 1976. This notice also announces that the period of time for submitting written comments on the August 10 proposal is extended until October 26, 1976.

In the FEDERAL REGISTER of August 10, 1976 (41 FR 33637), the Commission proposed to establish a regulation (16 CFR Part 1150) under sections 8 and 9 of the Consumer Product Safety Act (15 U.S.C. 2057, 2058) to declare as banned hazardous products (1) lead-containing paint and similar surface-coating materials containing more than a safe level of lead, (2) toys and other articles intended for use by children bearing leadcontaining paint or other similar surfacecoating materials containing more than a safe level of lead, and (3) articles of furniture bearing lead-containing paint or other similar surface-coating materials containing more than a safe level of lead. An oral hearing on the matter at which all interested persons were given the opportunity to testify was conducted on September 13, 1976. The last date for filing written comments on the proposal was September 24, 1976.

The determination of a safe level of lead will be made in accordance with a separate proceeding under the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4801 et seq.), as amended (Pub. L. 94–317). This proceeding was also commenced by an announcement in the FEDERAL REGISTER on August 10, 1976, 41 FR 33636, and the period of time for filling written comments relating to that proceeding has also been extended from September 24, 1976 until October 26, 1976 by FR Doc. 76–29321 appearing in this issue of the FEDERAL REGISTER.

As provided in section 9 of the Consumer Product Safety Act, whenever the Commission proposes a rule declaring a product to be a banned hazardous product, it must, within 60 days after publication of the proposal, (1) promulgate the consumer product safety rule if the appropriate findings are made, or (2) withdraw the proposal if it determines that the the rule is not reasonably necessary or not in the public interest. The 60-day period, however, may be extended for good cause if the Commission publishes its reasons for the extension in the FEDERAL REGISTER. In the case of the

August 10 proposal, the 60th day falls on October 9, 1976.

With respect to promulgating or withdrawing the consumer product safety rule proposed on August 10, the Commission believes that a reasonable date for publication of the appropriate FED-ERAL REGISTER notice is April 1, 1977. As indicated in the August 10 proposal, the Commission intends to establish the maximum level of lead in paint under the Consumer Product Safety Act rule at the level determined to be a safe level under the LBPPPA. Therefore, since the determination under the LBPPPA is required to be made after consideration of available information, including the recommendations of several specific agencies and organizations, and after providing the opportunity for an oral hearing. an extension of the period until April 1 is necessary to permit the Commission to first consider the information available with respect to determining a safe level of lead in paint. Thereafter, the Commission must consider available information with respect to the findings necessary for promulgating the proposed consumer product safety rule. Additional time will also be required to consider and respond to the comments submitted on the proposal and to draft the FEDERAL REGISTER notice establishing the rule.

Regarding the period of time for submitting written comments and information relating to the consumer product safety rule proposed on August 10, the Commission (as in the matter of extending the comment period in the LBPPPA proceeding from September 24 until October 26, 1976, announced elsewhere in this issue of the FEDERAL REG-ISTER) is also extending the comment period in the instant proceeding until October 26, based on a request submitted by the National Paint and Coatings Association. This is to ensure that the information available is as complete as possible.

Accordingly, pursuant to provisions of the Consumer Product Safety Act (secs. 8, 9, 86 Stat. 1215-17; 15 U.S.C. 2057, 2058), the Commission, for good cause, as stated above, extends the period of time within which it must promulgate or withdraw the consumer product safety rule (16 CFR Part 1150) proposed in the FEDERAL REGISTER of August 10, 1976 (41 FR 33637) until April 1, 1977.

Interested persons may submit written material relevant to the proposal, including data, views, and arguments, preferably in five copies, addressed to the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207, before the close of business, October 26, 1976. Received submissions may be inspected in the Office of the Secretary, 3rd Floor, 1111 18th Street NW., Washington, D.C., during working hours Monday through Friday.

Dated: October 1, 1976.

SADYE E. DUNN, Secretary, Consumer Product Safety Commission.

[FR Doc.76-29322 Filed 10-5-76;8:45 am]

[ 16 CFR Part 1500 ]

CERTAIN LEAD-CONTAINING PAINT; TOYS
AND OTHER ARTICLES BEARING SUCH
PAINT INTENDED FOR USE BY CHILDREN

Proposed Revocation of Regulation; Extension of Time for Submitting Comments

The purpose of this notice is to announce that the comment period on the proceeding to revoke a regulation (16 CFR 1500.17(a)(6)) under the Federal Hazardous Substances Act (FHSA), (15 U.S.C. 1261 et seq.), declaring certain lead-containing paint, and toys or other articles intended for use by children bearing such paint, to be banned hazardous substances, has been extended from September 24, 1976, until October 26, 1976.

A notice was published in the FEDERAL REGISTER of August 10, 1976 (41 FR 33636), commencing a proceeding under recent amendments (Pub. L. 94-317) to the Lead-Based Paint Poisoning Prevention Act (LBPPPA) (42 U.S.C. 4801 et seq.) for a determination by the Consumer Product Safety Commission of a safe level of lead in paint for residential uses. On the same date a notice was also published proposing a consumer product safety rule under the Consumer Product Safety Act (CPSA) to declare as banned hazardous products paint, similar surface-coating materials, toys, articles intended for use by children, and articles of furniture, containing or bearing lead or paint or other similar surface-coating materials with lead in excess of the level determined safe under the LBPPPA. Since the proposal under the Consumer Product Safety Act would, if promulgated, supplant the FHSA lead paint regulation, a proposal was also published on August 10 (41 FR 33640) to revoke the regulation simultaneous with the promulgation of the consumer product safety rule.

Elsewhere in this issue of the FEDERAL REGISTER, (FR Doc. 76-29322, Proposed Rules and FR Doc. 76-29321, notices) notices have been published extending the period of time for the filing of written-comments and information on the LBPPPA and CPSA proceedings from September 24, 1976, until October 26, 1976. This extension was based upon a request submitted by the National Paint and Coatings Association for additional time to submit information. Since the proposed revocation of the regulation under the FHSA is directly related to the proceedings under the LBPPPA and CPSA, it is appropriate to extend the comment period on the FHSA proposal from September 24, 1976, until October 26, 1976, as well.

Accordingly, pursuant to provisions of the Federal Hazardous Substances Act (sec. 2(f)(1)(A), (q), 74 Stat. 372, 374, as amended by 80 Stat. 1304–05; (15 U.S.C. 1261(f)(1)(A), (q))) and the Federal Food, Drug, and Cosmetic Act (sec. 701(e), (f), (g), 52 Stat. 1055–56, as amended 70 Stat. 919, 72 Stat. 948; (21 U.S.C. 371(e), (f), (g)) and under authority vested in the Commission by the Consumer Product Safety Act (sec.

30(a), 86 Stat. 1231; 15 U.S.C. 2079(a)), the Commission extends the period of time for submitting written comments on the proposal of August 10, 1976 (41 FR 33640), to revoke 16 CFR 1500.17(a) (6) until October 26, 1976.

Interested persons are invited to submit, on or before October 26, 1976 written comments, regarding this proposal. Written comments and any accompanying data or material should be submitted preferably in five copies, addressed to the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207. Comments may be accompanied by a memorandum or brief in support thereof. Received comments may be seen in the Office of the Secretary, 3rd floor, 1111 18th Street N.W., Washington, D.C. during working hours Monday through Friday.

Dated: October 1, 1976.

SADYE E. DUNN, Secretary, Consumer Product Safety Commission.

[FR Doc.76-29323 Filed 10-5-576;8:45 am]

# CONSUMER PRODUCT SAFETY COMMISSION

### LEAD-BASED PAINT

### Proceeding To Determine Safe Level; Extension of Comment Period

The purpose of this notice is to announce that the comment period on the proceeding to determine a safe level of lead in paint has been extended from September 24, 1976, until October 26, 1976.

On August 10, 1976, the Consumer Product Safety Commission published a notice in the Federal Register (41 FR 33636) commencing a proceeding under recent amendments (Pub. L. 94–317) to the Lead-Based Paint Poisoning Prevention Act (LBPPPA) (42 U.S.C. 4801 et seq.) to determine a safe level of lead in paint for residential uses.

Under the amended LBPPPA the Commission has been directed to determine whether a level of lead in paint which is greater than 0.06 percent, but not over 0.5 percent, is safe. If the Commission makes such a determination the definition of the term "lead-based paint," with respect to paint manufactured after the expiration of the 6month period beginning on the date of the Commission's determination, means paint containing by weight (calculated as lead metal) in the total non-volatile content of the paint, or the equivalent measure of lead in the dried film of paint already applied, or both, more than the level of lead determined by the Commission to be safe.

If the definition of the term "lead-based paint" has not been established by a Commission determination the term means, with respect to paint which is manufactured after June 22, 1977, paint containing more than 0.06 percent lead by weight. The present definition of the term "lead-based paint" is paint containing more than 0.5 percent lead by weight.

The amended LBPPPA specifies that the Commission determination of a safe level of lead in paint is to be made before December 23, 1976, and is to be based on all available data and information after providing an opportunity for an oral hearing and after considering recommendations of the Secretary of Health, Education, and Welfare (including those of the Center for Disease Control) and of the National Academy of Sciences.

The oral hearing in this matter was conducted on September 13, 1976, and a transcript was made which is available for inspection at the Office of the Secretary, 3rd floor, 1111 18th Street N.W., Washington, D.C. The recommendations of the Department of Health, Education, and Welfare and the National Academy of Sciences as well as other comments and information pertaining to the matter have also been received and are available for inspection in the Office of the Secretary.

The last date for the submission of written information and comments regarding this proceeding had been established by the Commission and announced in the Federal Register notice of Au-

gust 10, 1976, as September 24, 1976. The National Paint and Coatings Association, however, representatives of which testified at the oral hearing on September 13, has requested that the comment period be extended to provide additional time to submit responses to questions presented at the hearing by counsel for Consumers Union and certain other information. The Commission, after considering this request, believes that it is desirable to have the record for decision as complete as possible, and has therefore decided to extend the comment period to October 26, 1976 for all interested parties. An extension of the comment period to this date is reasonable because it will permit all available information to be evaluated by the Commission prior to its December 22, 1976 deadline for a decision on a safe level of lead in paint.

Accordingly, interested persons may submit relevant written material, including data, views, and arguments, preferably in five copies, addressed to the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207, before the close of business, October 26, 1976. Received submissions may be inspected in the Office of the Secretary, 3rd floor, 1111 18th St. N.W., Washington, D.C., during working hours Monday through Friday.

Dated: October 1, 1976.

SADYE E. DUNN, Secretary, Consumer Product Safety Commission.

[FR Doc.76-29321 Filed 10-5-76;8:45 am]

# CONSUMER PRODUCT SAFETY COMMISSION

# DETERMINATION OF SAFE LEVEL OF LEAD IN PAINT

### **Announcement of Decision**

This notice announces the decision of the Consumer Product Safety Commission under the Lead-Based Paint Poisoning Prevention Act that available scientific information is insufficient to establish that a level of lead in paint above 0.06 percent but not over 0.5 percent is safe.

### BACKGROUND

In 1971 the Lead-Based Paint Poisoning Prevention Act (LBPPPA), 42 U.S.C. 4801 et seq., was enacted to help prevent the problem of lead poisoning among children caused by the ingestion of lead-containing paints. The act defined the term lead-based paint as any paint containing more than one percent lead and directed the Secretary of Health, Education and Welfare to prohibit the use of lead-based paint in residential structures constructed or rehabilitated by the Federal government or with Federal assistance in any form. The act also established grants for the detection, treatment, and elimination of lead-based paint poisoning.

In 1973 the LBPPPA was amended (Pub. L. 93-151), among other things, to direct the Chairman of the Consumer Product Safety Commission to conduct appropriate research on multiple layers of dried paint film containing lead in order to ascertain the safe level of lead in residential paint products. If the Chairman, in a report to be submitted to Congress by December 31, 1974, determined that a level of lead no greater than 0.5 percent was safe, then the definition of lead-based paint after December 31, 1974, would be paint containing more than that level of lead. If the Chairman was unable to make such a determination, the definition of lead-based paint would be paint containing

more than 0.5 percent lead until January 1, 1975, when the definition would be paint containing more than 0.06 percent lead.

On December 23, 1974, the Chairman issued "A Report to Congress in Compliance with the Lead-Based Paint Poisoning Prevention Act, as Amended," which found a 0.5 percent level of lead in paint to be safe. This finding, based on animal studies conducted for the Commission by the New York Institute of Environmental Medicine and The Southwest Foundation for Research and Education, and other available data and information, utilized as a definition for a "safe level" of lead in paint "a level where we have a reasonable assurance with expected exposures, of the absence of serious toxic effects." On the basis of the Chairman's finding that 0.5 percent was a safe level of lead in paint, the definition of the term lead-based paint continued, after December 31, 1974, to utilize the 0.5 percent level.

Subsequently, Congress amended the definition of the term lead-based paint in the LBPPPA in passing the National Consumer Health Information and Health Promotion Act of 1976, Pub. L. 94-317 (90 Stat. 705-706). Under this amendment the full Consumer Product Safety Commission was directed to determine, by December 23, 1976, whether a level of lead in paint in excess of 0.06 percent, but not over 0.5 percent, was safe. If the Commission were able to make such a determination, lead-based paint would consist of any paint manufactured six months after such determination containing more than the determined safe level of lead. If the Commission were unable to determine a safe level of lead in paint, paint manufactured after June 22, 1977, containing more than 0.06 percent lead, would be considered lead-based paint. Until such time, lead-based paint would continue to be defined as any paint containing more than 0.5 percent lead.

In addition to providing for a Commission determination of a safe level of lead in paint, the amended LBPPPA also directs (1) the Department of Health, Education, and Welfare to take action with respect to lead-based paint on cooking, eating, and drinking utensils; (2) the Department of Housing and Urban Development to take action with respect to lead-based paint in residential structures constructed or rehabilitated by the Federal Government or with Federal assistance; and (3) the Consumer Product Safety Commission to "take such steps and impose such conditions as may be necessary or appropriate to prohibit the application of lead-based paint to any toy or furniture article."

### SAFE LEVEL DETERMINATION

The Commission determination of whether a level of lead in paint in excess of 0.06 percent, but not over 0.5 percent, is safe, was to be made on the basis of available data and information after providing and opportunity for an oral hearing and after considering recommendations of the Secretary of Health, Education, and Welfare (including those of

the Center for Disease Control) and of the National Academy of Sciences.

On August 10, 1976, by publication of a notice in the FEDERAL REGISTER (41 FR 33636), the Commission commenced the proceeding to determine whether it could determine a safe level of lead. This notice invited the submission of written comments and also announced the time and place of the hearing to be held in accordance with the LBPPPA. At the same time, the Commission issued a proposal under section 8 of the Consumer Product Safety Act (CPSA), 15 U.S.C. 2057, which would declare as banned hazardous products paint and other similar surfacecoating materials containing more than the level of lead ultimately to be established as the definition of the term leadbased paint under the LBPPPA (41 FR 33637). The proposal also would declare as banned hazardous products toys, other articles intended for use by children, and articles of furniture bearing such paint or other similar surface-coating materials. The existing regulations, issued under the Federal Hazardous Substances Act, 15 U.S.C. 1261 et seq., banning leadcontaining paint above the 0.5 percent level and toys and other articles intended for use by children bearing such paint (16 CFR 1500.17(a)(6)), would be revoked when any final CPSA regulations are issued in order to prevent an unnecessary duplication of existing regulations (41 FR. 33640)

As announced in the August 10, 1976, notices, the oral hearing in both the LBPPPA and CPSA matters was held on September 13, 1976. The written comment period for both matters was scheduled through September 24, 1976, and was, by notice published in the FEDERAL REGISTER on October 6, 1976 (41 FR 44126-44128), extended to October 26, 1976. At the hearing, testimony was presented by representatives of the Center for Disease Control of the Department of Health, Education, and Welfare; the Department of Housing and Urban Development; Consumers Union; National Paint and Coatings Association: Committee for Lead Elimination Action in the District of Columbia; American Academy of Pediatrics; the Chicago Department of Health Child Lead Poisoning Prevention Program; and the National Academy of Sciences ad hoc Committee on Lead in Paint. In addition, numerous written comments and recommendations were received including recommendations from the Department of Health, Education, and Welfare (including those of the Center for Disease Control) and the National Academy of Sciences, as required under the LBPPPA.

The recommendations of the National Academy of Sciences, as stated in a report submitted to the Commission entitled "Recommendations for the Prevention of Lead Poisoning in Children" ("NAS Report"), concluded, among other things, that:

"since the CPSC-supplied studies did not adequately simulate the conditions found in young children, particularly in relation to age and diet, we were unable, on the basis of these studies, to determine that 0.5 percent lead in paint is safe." (NAS Report, p. 9.)

The NAS Report also found that 0.5 percent lead in paint represents a hazard to a child with pica for paint and specifically recommended:

9195

"that the deliberate addition of lead to paint for residential buildings or other surfaces accessible to young children be immediately discontinued and that a level not to exceed 0.06 percent lead in the final dried product be set for regulatory purposes." (NAS Report, p. 10.)

The recommendations of the Department of Health, Education, and Welfare, including those of the Center for Disease Control, as presented at the September 13 hearing, and in written comments to the Commission, (1) generally supported the recommendations in the NAS Report, (2) criticized the lead paint studies previously conducted by the Commission as support for establishing 0.5 percent, as being safe, and (3) urged the Commission to adopt a level below 0.5 percent. They stated that they believed the 0.06 percent level to be achievable and enforceable. In addition, a representative of the American Academy of Pediatrics, medical experts, and several consumer groups expressed opinions in support of the 0.06 percent lead level.

The National Paint and Coatings Association (NPCA) stated it would support a standard of "no lead intentionally added in the formulation of the product." They suggested, however, a level of 0.2 percent in order to provide a margin for inadvertent contamination of paint with lead. Representatives of the toy industry recommended adoption of a 0.25 percent lead level primarily to achieve uniformity with certain foreign standards. Neither the NPCA nor those representing the toy industry, however, provided toxicity data in support of a determination that the suggested levels were safe. In addition, a medical consultant for NPCA expressed in written comments his concern regarding the evidence offered by NAS that 0.5 percent lead in paint represents a hazard to children. He did not, however, present information which would support a determination that the 0.5 percent level of lead in paint is safe or that another level, greater than 0.06 percent, is safe.

In addition to comments related to the toxicity of lead-containing paint, comments and testimony were also presented on various issues related to the economic and practical effects of lowering the lead level, including the cost and need for the development and establishment of methods for analyzing the lead content of paint and the possible consequences of eliminating lead as a drier in paint. Such information is relevant to the Commission's proposal of August 10, 1976, regarding the regulation under the CPSA of lead-containing paint and certain other articles bearing such paint. Since the principal concern under the LBPPPA is with toxicity and safety of lead in paint, such comments will be considered in the context of issuance of the Commission's final regulations under the

After considering all relevant data and information with respect to the determination of a safe level of lead in paint

under the LBPPPA, the Commission has concluded that such data and information do not support a finding that a level of lead in paint above 0.06 percent but not over 0.5 percent is safe. The Commission believes it cannot ignore the criticisms contained in the comments and testimony of the representatives of the National Academy of Sciences, the Center for Disease Control of the Department of Health, Education, and Welfare and others regarding the weight of the aforementioned animal studies conducted for the Commission as evidence of the safety of paint containing 0.5 percent lead. Moreover, the Commission is unaware of any other data or information sufficient to establish the safety of lead at a level over 0.06 percent. Consequently under the LBPPPA, paint manufactured after June 22, 1977, containing more than 0.06 percent lead by weight (calculated as lead metal) in the total nonvolatile content of the paint, or the equivalent measure of lead in the dried film of paint already applied, or both, will be considered "lead-based paint." It is also noted that the August 10, 1976 notice under the CPSA proposed to regulate lead-containing paint at the LBPPPA level for consumer product paints and toys, articles intended for use by children, and furniture, bearing such paint.

### ENVIRONMENTAL CONSIDERATIONS

In considering the other information available on the question of a safe level of lead under the LBPPPA, the Commission also had before it a preliminary draft environmental impact statement on the lead paint regulations proposed under the CPSA. This preliminary draft contained information on the manufacture of paint and explored the possible economic and environmental consequences of the proposed Commission regulations under the CPSA. Under the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 et seq., agencies of the Federal Government are required to include in proposals for major Federal actions significantly affecting the quality of the human environment, a detailed statement on the environmental impact of the proposed action (42 U.S.C. 4332). As described above, the Commission's functions under the LBPPPA are twofold. The first is to determine whether a safe level of lead can be established, and the second is to take steps as necessary or appropriate to prohibit the application of lead-based paint to any toy or furniture article. The first function under the LBPPPA consisted of simply an evaluation of available information to determine if it supported a finding of a safe level of lead. The Commission action in this regard has been merely to determine that such a finding cannot be supported, thus allowing the Congressionally established definition of lead-based paint to become automatically effective at the 0.06 percent level. Thus, the Commission does not believe its exercise of this function constitutes a "major Federal actionsignificantly affecting the quality of the
human environment." This view is supported by the fact that the Commission
and the other Federal agencies involved
must undertake rulemaking and other
administrative actions to implement the
directives of the LBPPPA. Consequently,
while the Commission considered the
possible economic and environmental
effects of its proposed CPSA rulemaking in reaching its safe level decision
under the LBPPPA, no environmental
impact statement has been prepared
specifically on the LBPPPA decision.

The preliminary draft environmental impact statement on the proposed Commission action to regulate lead-containing paint under the CPSA has been revised and approved by the Commission for release and public comment. These comments will be considered in issuing a final impact statement. The final impact statement will be utilized in issuing the final CPSA regulation in accordance with the requirements of NEPA. Those persons interested in commenting on the draft environmental impact statement may obtain a copy from the Office of the Secretary of the Consumer Product Safety Commission, 1111 18th Street, N.W., Washington, D.C. 20207. Comments should be filed in the Office of the Secretary before the close of business, March 23, 1977. The draft statement formally became available for comment on February 4, 1977, as announced in the notice published in the FEDERAL REGISTER of that date (42 FR 6879) by the Council on Environmental

Dated: February 11, 1977.

SAYDE E. DUNN, Secretary, Consumer Product Safety Commission.

[FR Doc.77-4903 Filed 2-15-77;8:45 am]



44126) from September 24, 1976 to October 26, 1976. Within respect to this proceeding the Commission, in the Federal Register of February 16, 1977 (42 FR 9404), formally announced its determination which was made on December 16, 1976, under the LBPPPA that the available scientific information is insufficient to establish that a level of lead in paint above 0.06 percent but not over 0.5 percent is safe.

As provided in section 9 of the Consumer Product Safety Act, whenever the Commission proposes a rule declaring a product to be a banned hazardous product, it must, within 60 days after publication of the proposal, (1) promulgate the consumer product safety rule if the appropriate findings are made, or (2) withdraw the proposal if it determines that the rule is not reasonably necessary or not in the public interest. The 60-day period, however, may be extended for good cause if the Commission publishes its reasons for the extension in the FED-ERAL REGISTER. In the FEDERAL REGISTER of October 6, 1976 (41 FR 44126), the Commission published its reasons for extending the period of time for either promulgating the rule or withdrawing the proposal from October 9, 1976 to April 1,

The Commission now announces a further extension of the period of time for promulgation or withdrawal of the consumer product safety rule proposed on August 10, 1976, for the reasons set forth below.

In the FEDERAL REGISTER of February 4, 1977, the Council on Environmental Quality announced the receipt and availability of a draft environmental impact statement submitted by the Commission. Under Council Guidelines (40 CFR 1500 et seq.) the minimum period of time for public review and comment is forty-five (45) days from publication of the notice of availability, which in this instance has been established as ending March 23, 1977. Thereafter, the Commission and staff will require a sufficient period of time to adequately review and analyze the comments which are received preparatory to the development and publication of a final environmental impact statement. In that regard, the Council Guidelines explicitly state that to the maximum extent practicable no administrative action is to be taken sooner than (90) days after a draft environmental statement has been circulated for comment and no sooner than thirty (30) days after the final statement has been made public. The economic findings required to be made by the Commission by section 9 of the Consumer Product Safety Act prior to promulgating a consumer product safety rule are currently being prepared. However, their completion would best await review and analysis of the public comments made in response to the draft environmental impact statement, since the draft statement addresses economic issues. In light of that fact, it is believed that the responsive public comments may contribute substantially to

the development of the conomic findings required by section 9.

Accordingly, pursuant to provisions of

Accordingly, pursuant to provisions of the Consumer Product Safety Act (secs. 8, 9, 86 Stat. 1215-17; 15 U.S.C. 2057, 2058) the Commission, for good cause, as stated above, extends the period of time within which it must promulgate or withdraw the consumer product safety rule (16 CFR Part 1150) proposed in the FEDERAL REGISTER of August 10, 1976 (41 FR 33637) until July 14, 1977. This period may be further extended by a notice published in the FEDERAL REGISTER showing good cause.

Dated: March 23, 1977.

SADYE E. DUNN,
Secretary, Consumer Product
Safety Commission.

[FR Doc.77-9137 Filed 3-25-77;8:45 am]

# CONSUMER PRODUCT SAFETY COMMISSION

[ 16 CFR Part 1150 ]

LEAD-CONTAINING PAINT AND CERTAIN CONSUMER PRODUCTS BEARING LEAD-CONTAINING PAINT

Banned Hazardous Products; Extension of Date for Promulgating Rule or Withdrawing Proposed Rule

The purpose of this notice is to announce the extension until July 14, 1977, of the period of time within which the Consumer Product Safety Commission is required to either promulgate or withdraw the consumer product safety rule proposed on August 10, 1976.

In the FEDERAL REGISTER of August 10, 1976 (41 FR 33637), the Commission proposed to establish a regulation (16 CFR Part 1150) under sections 8 and 9 of the Consumer Product Safety Act (15 U.S.C. 2057, 2058) to declare as banned hazardous products (1) lead-containing paint and similar surface-coating materials containing more than a safe level of lead, (2) toys and other articles intended for use by children bearing lead-containing paint or other similar surface-coating materials containing more than a safe level of lead, and (3) articles of furniture bearing lead-containing paint or other similar surface-coating materials containing more than a safe level of lead. An oral hearing on the matter at which all interested persons were given the opportunity to testify was conducted on September 13, 1976. The last date for filing written comments on the proposal was extended by notice published October 6, 1976 (41 FR 44126) from September 9, 1976 to October 26, 1976.

The determination of a safe level of lead was to be made by the Commission in accordance with a separate proceeding under the Lead-Based Paint Poisoning Prevention Act (LBPPPA) (42 U.S.C. 4801 et seq.), as amended (Pub. L. 94-317). This proceeding was also commenced by an announcement in the Federal Register on August 10, 1976 (41 FR 33636), which invited submission of vritten comments and also advised of the aforementioned September 13, 1976 oral framework. Subsequently, the last date for filling written comments was extended by notice published October 6, 1976 (41 FR







Listing of Organizations from Whom Comments Have been Requested:

Dr. Irwin Billick Director, Office of Community & Environmental Standards HUD, Rm 7206 Wash. D.C. 20410

Food & Drug Administration HEW Office of the Environmental Officer 5600 Fishers Lane Rockville Md.

Office of Dep. Sec. for Environmental Affairs
Dept. of Commerce
Wash. D.C. 20230

Director, Office of Federal Activities Environmental Protection Agency 401 M St. S.W. Wash. D.C. 20460

Dr. Walter Muir Council of Environmental Quality 722 Jackson Place N.W. Wash. D.C. 20006

Allegheny County Health Department
3333 Forkes Ave.
Pittsburgh, Pa. 15213
Attn: Albert H. Brunwasser
Director Bur. of Environmental Health

Children's Hospital Medical Center 300 Longwood Ave. Boston, Mass. 02115 Herbert L. Needleman, Director Lead Exposure

New York Univ. Med. Center 550 First Ave. New York, New York 10016 Professor Theodore J. Kneip (212) 679-3200

National Paint & Coating Association 1500 R.I. Ave. N.W. Wash. D.C. 20005 Robert Roland, President

Gordon Bartels Co. 2600 Harrison Ave. Rockville, Ill. 61101 Mr. Marshall Erickson

EuropeanFederation of Toy Manufacturers Assoc. 80 Camberwell Rd. London, England S.E. 5 Mr. G.R. Goude State of New Jersey, Dept. of Health Trenton, N.J. 08625' Edmond D. Duffy Jr., MPA

Commonwealth of Massachusetts Executive Dept. Boston Mass 02133 Michael S. Dukakis

Consumer Union 1714 Mass. Ave. N.W. Wash. D.C. 20036 Mr. Mark Silbergeld

Univ. of Rochester School of Medicine & Dentistry 601 Elmwood Ave. Rochester, N.Y. 14642 Dr. James W. Sayre

Ford Motor Co.
American Rd.
Dearborn Mi 48121
J.C. Eckhold, Direcotr Automotive Safety

Massachusetts Advocacy Center 2 Park Square Boston, Mass. 02116 Kathleen Boundy

Philadelphia Dept. of Public Health Municipal Services Bldg. Phila. Pa. 19107 Dr. Lewis D. Polk

Aaron Locker
Toy Manufacturers of America, Inc.
1 Penn. Plaza
New york, New York 10001

HEW-Dept. of Health Education and Welfare
Office of Environmental Affairs
Office of Secretary for Administration
Wash. D.C. 20202

Food and Drug Administration HEW Office of Environmental Officer 50 7th St. N.E. Atlanta, Ga. 30323 Dr. Vernon Houck Communicable Disease Center, HEW 50 7th St., N.E. Atlanta, GA 30323

Director
Office of Consumer Affairs, DHEW
Washington, D.C. 20201

Dr. Julian Chisholm Chairman, NAS/NRC Ad Hoc Committee Baltimore Dept. of Hospitals Baltimore, MD 21202

Dr. Muriel Wolf
Committee for Lead Elimination
Action in D.C.
Children's Hospital
2135 13th St., N.W.
Washington, D.C. 20009

Richard W. Scott Sherwin-Williams Co. Research Ctr. 10900 S. Cottage Grove Ave. Chicago, IL 60628

Dorothy Noyes Kane, MPH. PHD 14 Charlton Hill Hamden, CT 06518

Alcatraz Company, Inc.
Martin A. Trenkle, Vice President,
for Manufacturing & Development
1900 Ellen Rd.
Richmond, VA 23230



U.S. Consumer Product Safety Commission Washington, D.C. 20207

FOR IMMEDIATE RELEASE FRIDAY
December 27, 1974

Contact: Ron Aaron Eisenberg

(202) 634-7780 (Office) (202) 686-0077 (Home)

CPSC CHAIRMAN SIMPSON MAINTAINS 0.5 PERCENT LEVEL OF LEAD IN PAINT

Washington, D.C. (Dec. 27, 1974) -- In a report submitted to Congress, U.S. Consumer Product Safety Commission Chairman Richard O. Simpson today determined that 0.5 percent level of lead in paint is "safe" and should continue to be permitted as the maximum lead content in household paints.

Simpson's action will prevent an automatic drop to a 0.06 percent maximum lead level on December 31, 1974, as stipulated in the amendments to the Lead Based Paint Poisoning Prevention Act.

The 1973 amendments directed the CPSC Chairman to conduct appropriate research and to determine a "safe level" of lead for residential paint products.

Simpson stated in the report that absolute safety could only be achieved by banning all lead in paint. And he interpreted safe as a "level where we have a reasonable assurance, with expected exposures, of the absence of serious toxic effects."

Simpson's decision was based upon research designed to determine what level of paint causes or contributes to illness, particularly in young children prone to the pica syndrome-eating non-food items, such as paint chips.

In making his determination, Simpson relied on the results of studies using juvenile baboons undertaken at the New York

University Institute of Environmental Medicine and the Southwest

Foundation for Research and Education, as well as other studies cited in the full report. These investigations indicated that there was no observable adverse biological effects at or below

0.5 percent lead level.



U.S. CONSUMER PRODUCT SAFETY COMMISSION WASHINGTON, D.C. 20207

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
U.S. CONSUMER PRODUCT SAFETY COMMISSION



Return this newsletter to above address
If you do NOT wish to receive it
or if change of address is needed,
Indicate change, including ZIP code,

AN EQUAL OPPORTUNITY EMPLOYER

1st Class Mail

NEWS RELEASE



U.S. Consumer Product Safety Commission • Washington, D.C. 20207

# NEWS RELEASE

Office of Public Affairs
Media Inquiries: 202/634-7780
76-87

FOR RELEASE FRIDAY DECEMBER 17, 1976

CPSC ANNOUNCES DECISION ON LEAD-IN-PAINT ISSUE RAISED BY CONGRESS

WASHINGTON, D.C. (Dec. 17) -- The U.S. Consumer Product Safety Commission (CPSC) today announced that available scientific information is insufficient to support a finding that a level of lead-in-paint above 0.06 percent is safe.

The Commission was asked by Congress under the Lead-Based Paint Poisoning Prevention Act (LBPPPA) to determine if a higher level of lead-in-paint could be considered safe. The concern of Congress in passing the LBPPPA was to protect children from lead poisoning due to eating of lead-containing paint chips.

In passing the LBPPPA Congress defined lead-based paint that is manufactured after June 22, 1977, as paint with more than 0.06 percent lead unless the CPSC by December 23, 1976, was able to determine some safe level greater than 0.06 percent but not to exceed 0.5 percent. The present limit is 0.5 percent.

The Commission reviewed all information and literature available, including a study by an ad hoc committee of the National Academy of Sciences; the recommendations of the Secretary of the Department of Health, Education and Welfare, including the comments from the Center for Disease Control; testimony at a public hearing September 12, 1976; and other available information and written comments, in order to fulfill its obligation under the LBPPPA. The Commission concluded that because of the limitations of the existing available scientific data, it was unable to establish whether a level of lead in residential paint in excess of 0.06 percent, but not exceeding 0.5 percent, was safe.

Under the LBPPPA the Department of Housing and Urban Development (HUD) is instructed to prohibit lead-based paint in residential structures constructed or rehabilitated by the Federal government or with Federal assistance; the Department of Health, Education and Welfare is to take steps to ban lead-based paint from cooking, drinking or eating utensils; and the CPSC is directed to prohibit lead-based paint on any toy or furniture article.

On August 10, 1976, the Commission indicated in a Federal Register proposal that its determination of a definition of "lead-based paint" under the LBPPPA would form the basis for a banning action under the Consumer Product Safety Act. The banning action, as proposed, would cover lead-based paint on toys or furniture articles as set forth in the LBPPPA. It would also cover lead-containing paint generally.

- 30 -

U.S. CONSUMER PRODUCT SAFETY COMMISSION WASHINGTON, D.C. 20207

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE & FEES PAID U.S. CONSUMER PRODUCT SAFETY COMMISSION



FIRST CLASS MAIL

AN EQUAL OPPORTUNITY EMPLOYER

Return this newsletter to above address if you do NOT wish to receive it or if change of address is needed, indicate change, including ZIP CODE.

968.5,2 poject

QV 292 U51.4f 1977

# INAL ENVIRONMENTAL IMPACT STATEMENT ON LEAD CONTENT IN PAINT

Volume II May 1977



CONSUMER PRODUCT SAFETY COMMISSION WASHINGTON, D.C. 20207



# FINAL ENVIRONMENTAL IMPACT STATEMENT ON LEAD CONTENT IN PAINT

Volume II May 1977

Prepared by:

Economic Analysis. Hazard Identification and Analysis Directorate U.S. CONSUMER PRODUCT SAFETY COMMISSION, 5401 Westbard Avenue Washington. D.C. 20207

QV 292 U564F

1977

V. 2

Personal Value of Art.

Milming Formula De-

SECTION THAT PERSON

BETHERON, MARYLAND 20014

### TABLE OF CONTENTS

### VOLUME II

	Page
Summary	x-1
Discussion of Comments	XI-1
Listing of OrganizationsX	II-l
Copies of CommentsXI	II-l



### SUMMARY OF COMMENTS

Fifty-six comments on the draft EIS were received by the end of the comment period. Copies of these comments are included in this report. Thirty-three comments were received from companies, organizations, or individuals in, or associated with the paints and coatings producing industry. These include 31 comments from paints and coatings producers (comment numbers 2, 4, 6-10, 13, 15-19, 21-25, 27-31, 33, 35-37, 45, 49, 54, 55), a supplier to the industry (32), and the National Paint and Coating Association (39). Eleven comments were received from companies or organizations associated with the use of certain paint and coating products or with their distribution. These include comments from six associations (11, 34, 40, 43, 44, 56) and from five companies (12, 14, 41, 47, 51) that use or distribute paint products. Twelve comments were received from organizations or individuals representing what may be termed the public sector. These include a consumer organization (1), representatives of hospitals and medical centers (46, 48, 50), and city (3, 20), state (5, 26, 52), and federal (38, 42, 53) groups.

Comments on the draft EIS fall into three main categories: critiques of sections of the draft EIS; data or information in support of exemptions for certain specialty paints; and other miscellaneous comments, including expressions of preferences for effective dates of a ban and for alternatives discussed in the draft EIS, in particular the scope of the regulation and definitions. Most of the comments are brief, but several lengthy comments from manufacturers of paint or equipment were received. These tend to consist of quantitative estimates of economic effects or impacts on some aspect of paint production or use.

In the discussion that follows, where many comments expressing similar concerns were received, all comments are not individually cited. In some instances, comments may be specifically cited as representative of the concerns expressed. All comments received, however, are included in this report.

#### DISCUSSION OF COMMENTS

### A. Comments on Sections of the Draft EIS

### 1. Degree of Beneficial Impact

Three comments (1, 3, 50) object to the use of the term "moderate" in the draft EIS to describe the degree of beneficial impact accruing from a reduction of the lead content in paints and coatings. These comments present information to support their contention that the appropriate term should be "major" or "extremely" beneficial impact.

The choice of qualifying terms such as "slight," "moderate," "major," and the like, is a judgmental matter when sufficient data are not available upon which to make quantifiable orders of magnitude comparisons. As several comments (42, 48, 52) point out, paint is not the only environmental source of lead leading to lead poisoning, and the most serious cases of childhood lead poisonings found today are traceable to the ingestion of old paints. Although the reduction of lead content to the 0.06 percent level will provide a margin of safety above that of the 0.5 percent level, it will not affect exposure to lead from non-paint sources, nor will it affect exposure to old paints already applied in housing and on products. Thus, when the entire range of exposure is considered, the reduction to 0.06 percent lead content in paints and on certain products has and is not in and of itself, characterized as resulting in a 'major' beneficial impact."

### 2. Exemption of Exterior Paints

Several comments object to a consideration of exempting all exterior paints from the proposed ban on lead content. The Commission never intended to consider such a blanket exception, for which there is no basis, and regrets that the draft EIS made the statement inadvertently. The appropriate sections of this final report do not contain the statement, and it is not being considered.

### 3. Health Effects and Environmental Effects

Comments from the Department of Health, Education, and Welfare (42), and from the New York University Medical Center (46), among others, point out that Section I-D of the draft EIS, dealing with health effects of lead in paint, in attempting to paraphrase the recommendations of the National Academy of Science omits certain necessary material and inaccurately presents the conclusions of the NAS committee.

Accordingly, the section of the report has been rewritten.

Since the lead in paint is only one facet of the environmental lead problem, several comments suggest that the section on health effects should include a thorough discussion of the total exposure of individuals to lead-bearing contaminants. Routes of exposure other than through ingestion of lead-bearing paint are discussed briefly in the section on health effects and in Appendix A, and the cumulative effects of exposure to lead are recognized.

However, as the National Academy of Sciences' report states, "Paint provides the most concentrated source of lead potentially available to a young child." Since the scope of the proposed ban is restricted to paints and certain painted surfaces, other routes of exposure to lead are not affected and need to be considered in this EIS only inasmuch as they define a threshold from which to estimate the beneficial impacts resulting from a reduction of the lead content in paints.

In the comment from HEW's Center for Disease Control (42), concern was expressed that the statements in the Draft EIS tend to link undue lead absorption in children with the condition of pica for paint. While the child with pica is at increased risk, the comment points out that all young children constitute the population at risk because mouthing and swallowing of non-food materials is common in the majority of children under age three. Appropriate sections of this final report have been revised to reflect this concern.

Regarding certain environmental aspects, one comment (3) stated that, while lead, mercury, and cadmium compounds are known poisons, considerable margins of safety can be expected from substitute compounds using calcium, iron, manganese, and zinc because these elements are frequently deficient in the human diet. Information was also submitted (3) to

confirm that a 50-60 mg level of lead in children is associated with impaired visual discrimination and slowed learning. Another comment (23) submitted test data indicating the insolubility of lead sulfate and chromates in simulated gastric juices. It is however, the level of lead, and not the solubility of lead compounds, which provides the basis for a ban.

### 4. Lead Driers

Several comments objected to the discussion in the draft EIS concerning the degree to which the elimination of lead driers may result in unsatisfactory paint characteristics in areas with prevailing adverse weather conditions. Some comments, notably that from Consumers Union (1), contend that substituting for lead driers presents only minor inconveniences. Other comments contend that the elimination of lead driers will have dire repercussions on paints and painting in the New England and Pacific Northwest area. Neither of the contentions is wholly supportable by data in the record. While it may be true that it is difficult to substitute other driers for lead driers under conditions of low temperature accompanied by high humidity, it is also true that painting is generally not undertaken by professional painters or others during cold, wet, rainy, humid, windy or icy conditions. Thus, dire adverse effects cannot be substantiated since there is usually a complete cessation

of outdoor painting during extreme weather conditions. On the other hand, although other types of driers may be substituted for lead, there is currently no consensus on which non-lead driers should be used for specific applications. Therefore, substitution is not a "mere inconvenience" in that substantial research and development may be necessary to arrive at satisfactory reformulations for specific application characteristics.

### 5. Degree of Adverse Economic Effects

Some 75 percent of the comments dealt with economic aspects of reducing the level of lead in paint. Most of these concern one or more of the speciality paints for which exemptions are sought and these will be discussed in a following section. In general, however, there was considerable criticism of the characterization of the overall economic impact as "moderate." These objections fall into two categories: those which contend that economic effects should be considered "small" in relationship to the risks of lead poisoning and its effects; and those which contend that economic impacts should be termed "major" because of the size of various cost effects associated with reducing lead content.

As with characterization of beneficial impacts, the use of such qualifying terms is a judgmental matter. Unlike the previous example, however, estimates of the potential economic impacts are quantifiable. These estimates are

given in Section III of this report. The material on economic effects of regulation has been extensively revised from that contained in the draft EIS to reflect more recent information submitted in the comments and otherwise developed after the draft was issued. For other than certain specialty paints, cost estimates fall into three general categories: costs to replace lead; reformulation costs; and increased testing and monitoring costs. On an industry basis, these increased costs amount to only a small fraction of total sales of trade sales paints. Certain adverse economic effects have, therefore, been termed "slight" in this report because the basis of comparison is the entire industry. It is, however, recognized that differential impacts will fall on particular firms within the industry. The size of these impacts will depend on several factors such as the size of the firm, the nature of its quality control program, and the extent to which its product lines will require reformulation, among others.

### B. Exemptions for Specialty Paints

## 1. Special Purpose Coatings Discussed in the Draft EIS

Almost all the comments supported exempting some kinds of specialty paints. Support was based on two considerations: that the risk to children of lead poisoning from the paints and products was remote; and that the economic costs of not exempting certain of these items could be high.

Reasons cited as a basis for the low risk include:
that exposure or accessibility by children to such specialty
paints is remote; that the surfaces on which such paints are
applied are not chewable or gnawable, and, for some products, do not flake or chip; that certain types of products
to which such coatings are applied are not found in or
around households; and that there are no reported ingestions
by children of such paint.

A review of the comments shows that there are substantial quantitative differences among producers and distributors concerning the potential economic effects of reducing the lead content in specialty paints. Some of these differences can be attributed to the following:

Size of the company and its market share;

- -- Type of product and the number of producers of it;
- --Special characteristics of the products to which coatings are applied;
- --Degree of acceptance of available substitute nonleaded paint ingredients; and
- --Uniqueness or special properties attributed to particular ingredients such as pigments or driers.

For example, several producers of traffic paint claim that there is no satisfactory non-lead replacement for yellow chrome pigment (containing up to 24 percent lead (41)). Organic pigments for use in traffic paints (as well as for appliances, metal furniture, signs, and billboards)

are more costly on a per pound basis, and more such pigments must be used per gallon of paint. In addition, these reformulated coatings tend to have reduced hiding and covering properties, thus requiring the application of more paint. Their reduced durability and reduced color retention also increase the frequency of painting. Comments estimated the increased costs of Hansa Yellow, a yellow chrome pigment substitute, at from three to thirty (27A) times more than leaded pigment. And the increased finished costs of applying paints with organic pigments were estimated to range from 50 to 500 percent (27A). These adverse impacts are reflected in the economic effects section of this report.

Several comments state that there are no satisfactory lead pigment substitutes for certain graphic arts and bill-board coatings. Eight of some 19 basic colors contain lead pigments for which no satisfactory replacements are available. Comments estimated the increased costs of substitutes, if available, at double (40) the price or more (35) of current pigments. The increased cost of these coatings to graphic arts professionals and outdoor advertisers was estimated to be millions of dollars annually (40). The section on economic effects has been revised to reflect these estimates.

Estimated increased costs of automobile, agricultural and industrial equipment refinishes, should lead pigments be banned, varied widely. It is conceded, and so noted in appropriate sections of this report, that original finishes which contain leaded pigments, especially in the yellows, reds, greens, organges, and some browns, cannot be matched when refinish coatings are formulated without lead. It is estimated by a major insurance company (37) that one of every 13 cars is refinished annually, and the comment by Dupont (33) states that only 25 percent of all automobile paints are formulated with leaded pigments. Yet, the estimated increased costs resulting from a ban on lead pigments vary widely, from double present costs in one comment (33), \$0.5 billion in another (37), and as much as \$3.559 billion in a third (39). Given the estimated number of annual car refinishings and the proportion of leaded paints used, these estimates seem extremely high.

Other examples from the comments in which estimates of increased costs vary by considerable margins include the following:

- --A \$250 million (13) and an \$850 million (15) esti mated cost impact of denying exemptions for all speciality paints;
- --A 20 (15) to 660 percent (24) increase in material costs for the specialty paints;
- -- A three-fold increase in coverage costs (29); and
- -- Up to \$5.5 million (33) for reformulating 500 leaded paints.

Many of these estimates cannot be substantiated on the basis of data presented. As discussed in the section of this report on economic effects, there may be substantial adverse effects on certain specialty coatings if exemption is denied. The estimated cost effects of denial given in certain comments, however, appear to be exaggerated.

Other comments of a more general nature include statements such as the following:

- --There will be adverse economic effects on paint producers supplying equipment manufacturers should leaded pigments and driers not be exempted;
- --There will be price increases of varying amounts to users and consumers;
- --There will be adverse impacts on safety should certain colors such as yellow chrome be prohibited;
- --Poor quality and performance of many paints can be expected should the use of present pigments and driers be prohibited; and
- --Reduction of corrosion protection and resistance will result if red lead primers cannot be used.

These effects are discussed in the appropriate section of this report and some of the impacts are supported by available data and information. The dire economic effects predicted by some comments, however, cannot be substantiated. There are, for example, substitutes for red lead primers, including zinc and zinc rich oxides as well as ferric oxides. There are lead-free exterior wood primers used and produced by major manufacturers, and there are organic

pigments which can be used. It is true that not all substitutes are presently suitable for every application, and it is so noted in this report.

### 2. Mirror Backing Paint

Several comments, notably the comment from PPG

Industries (37), brought to the attention of the Commission the need to consider an additional special coating, mirror backing, for possible exemption. Lead-containing mirror backing paint is used to protect the silvered coating on mirrors and to prevent deterioration of the silver from salts, sulfur compounds, and moisture. According to PPG, mirror backing with a lead concentration from 10 to 25 percent by weight forms a film highly impervious to moisture and salts and prevents clouding and tarnishing. In addition, because the leaded mirror backing has excellent adhesion to the silvered surface, the cutting and working of mirror edges is facilitated. Unleaded backings tend to flake-off during cutting operations.

In support of the exemption, the comment notes that accessibility of children to the leaded backing is limited and that to ingest the lead containing paint would require breaking the integrity of the mirror, if not the mirror itself. Information is provided that the U.S. market for mirrors is about 140 million square feet of glass sheet annually, about 98 percent of which uses lead-containing backing.

If an exemption for this type of coating were not granted, the following adverse effects could result:

- --Service life expectancy of mirrors would be reduced (because of tarnishing and other deterioriation);
- --Consumers would face higher costs for earlier replacement; and
- -- The utility of mirrors would be severely reduced.

### C. Other Miscellaneous Comments

### 1. Scope and Definitions

Several comments support exempting such things as appliances, light fixtures, lamps, art works and other decorative products, and antique toys. It is contended that such items are not appropriately defined as furniture or children's articles and that the exposure of children to risk from these items is minimal or remote. Several comments also support the exclusion of metal furniture, especially lawn furniture, from any definition of furniture covered by the ban There are, however, several comments which specifically request that metal furniture, especially lawn furniture, not be considered for exemption. These comments maintain that such furniture, as well as Venetian blinds, may very well be a potential source of lead exposure for children.

One comment (33) notes that the risk of child ingestion of paint or paint flakes depends on three factors: the frequency of exposure; the geometry of accessibility; and

the tenacity of the paint to substrates. This comment and several others point out that the use of baked enamels on metal furniture, appliances and the like, results in a thin, hard, abrasion resistant, impact resistant, and highly durable film. It is claimed that these items do not have a tendency to chip or flake in ways that would pose a risk to children and that the surfaces are also not chewable.

It is, however, also noted in some comments that certain types of inexpensive lawn and porch furniture as well as some kinds of metal furniture are coated with other than baked enamels, and may, therefore, be subject to chipping and flaking. Thus, a general exemption for metal furniture of all types may not be appropriate.

The suggestions and recommendation contained in the comments on what should or should not be appropriately included as furniture will be considered by the Commission in determining the regulation's scope and definitions.

## 2. Expressions of Preference for Alternatives

Most comments stated a preference for Alternative 3 (CPSA with certain exemptions), or for Alternative 4 (#3 with a one-year effective date). Several comments strongly favored Alternative 5 with its delayed effective date and gradual reduction to the .06 percent level. The reasons generally given for preferring this alternative were that a staged reduction over a longer time period

would moderate the adverse cost impacts on industry and allow more time to research and develop substitute products.

At least one comment, however, from Dr. Whalen of the New York Department of Health (52), urged that a staged reduction be considered to allow sufficient time to evaluate the toxicity of materials substituted for lead. If not, the fear was expressed that one hazard (lead) might be replaced with another.

# LISTING OF ORGANIZATIONS SUBMITTING COMMENTS

MMENT	NUMBER	CORRESPONDENT	SIGNED BY
	1	Consumers Union Washington, D.C.	Mark Silbergeld, Attorney
	2	Wyandotte Paint Products Co. Norcross, Ga.	Robert R. Kern, V. Pres., Gen. Manager
	3	City of Baltimore Dept. Of Hospitals Baltimore, Md.	J. Julian Chisolm, Jr., M.D. Chairman NAS Committee on Lead in Paint
	4	The Gilbert Spruance Co. Philadelphia, Pa.	Robert M. Cox, Sr., President
	5	The Commonwealth of Mass. Dept of Public Health Jamaica Plain, Mass.	Richard W. Clapp, M.P.H., Director
	6	Zac Lac Paint & Lacquer Co. Atlanta, Ga.	L.H. Jones, President
	7	Southern Protective Products Co. Atlanta, Ga.	Larry Hecht, President
	8	Trinity Coatings Co. Fort Worth, Texas	Mel Gardner, President
	9	The Dean & Barry Co. Columbus, Ohio	Robert S. McKay II, President
1	-0	Perfection Paint & Color Co, Inc. Indianapolis, Ind.	George Gable, President
1	.1	European Federation of Toy Mfg., Assoc., London	G.R. Goude
1	.2	Deere & Co. Moline, Ill.	Kathleen R. Gibson, Attorney
1	.3	The Enterprise Companies Wheeling, Ill.	Arthur F. Bohnert, V. Pres. Research and Dev.

COMMENT NUMBER	CORRESPONDENT	SIGNED BY
14	International Harvester Hinsdale, Ill.	Ronald F. Zitko Chief Engineer, Operator Environment & Safet
15	Blatz Paint Co. Inc. Louisville, Ky.	Lee Kitchen, President
16	Preservative Paint Co. Seattle, Wa.	W.L. Smith, President
17	Danacolors, Inc. San Francisco, Ca	Charles H. Dana, President
18	Koppers Co., Inc. Pittsburgh, Pa.	Charles P. Brush, Manager Product Registration and Labeling
19	Glidden-Durkee, Div. of SCM Corp. Cleveland, Ohio	Arne C. Lindholm, Vice Pres., Chem. Coatings
20	Dept. of Public Health Philadelphia, Pa.	Lewis D. Polk, M.D. Act. Health Commissioner
21	Enmar, An Ameron Co. Wichita, Kansas	Charles M. Downs, General Manager
22	Dupli-Color Products Elk Grove Village, Ill.	Wirt V. Dunlop, President
23	The Voltax Co., Inc. Bridgeport, Conn.	John J. Riccio, Administrator
24	Van Sickle Paint Mfg.,Co. Lincoln, Nebraska	J. David McMahan, Technical Director
25	Industrial Chemicals Div./NL Ind., Inc. Hightstown, N.J.	C.W. Moore, Vice Pres.
26	State of N.J., Dept. of Health, Trenton, N.J.	Edmond D. Duffey, Jr., M.P.H.

OMMENT	NUMBER	CORRESPONDENT	SIGNED BY
	27	The Valspar Corp. Mineapolis, Minn.	J.B. Kenney, Technical Director
	27A	The Valspar Corp. Mineapolis, Minn.	Richard L. Fricker, Mgr. Tech. Projects
	28	North Jersey Paint Co. Inc. Wallington, N.J.	Bernard F. Malizia, President
	29	Seymour of Sycamour, Inc. Sycamore, Ill.	S.M. Heatley, President
	30	Randolph Products Co. Carlstadt, N.J.	W.G. Randolph
	31	Conchemco Coatings Lenexa, Kansas	R.D. Radford, President
	32	O.G. Innes Corp. New York, New York	R.O. Innes, President
	33	E.I. Du Pont De Nemours & Co. Wilmington, Del.	J.S. Harrison, Dir. Finishes Div.
	34	Outdoor Power Equip. Institute, Inc. Washington, D.C.	Donald E. Purcell, Dir. Govt. Reln. & Counsel
	35	Wilmer, Cutler&Pickering, Counsel for Consumers Paint Factory, Inc., Washington, D.C.	Richard A. Lowe Ronald J. Greene
	36	The Sherwin Williams Co. Cleveland, Ohio	H.E. Spitzer, Vice Pres. & Tech. Dir., Coatings Group
	37	PPG Industries, Inc. Pittsburgh, Pa.	T.Z. Korsak, Assistant Counsel Elmer C. Larsen, V. Pres. & Gen. Mgr., Coatings and Resin Div.

00

MMENT NUMBER	CORRESPONDENT	SIGNED BY
38	The Office of Consumer Affairs, HEW, Washington, D.C.	Frank R. Marvin, Acting Dir. Allan Finkel, General Counsel Susan E. Johnson, Attorney-Advisor
39	National Paint & Coating Assoc., Washington, D.C.	John M. Montgomery, General Counsel Larry L. Thomas, Assoc. General Counsel
40	Outdoor Advertising Assoc. of America, Inc. Washington, D.C.	Vernon A. Clark, V. Pres., Legislative
41	Ford Motor Co. Dearborn, Mich.	J.C. Eckhold
42	Dept. HEW, Office of Environ. Affairs, Washington, D.C.	Charles Custard, Director
43	Toy Mfg. of America, Aaron Locker Counsel New York, N.Y.	Aaron Locker
44	Farm & Industrial Equipment Institute Chicago, Ill.	Emmet Barke, Executive Secretary
45	The O'Brien Corp. S. San Francisco, Ca.	Frank A. Delke, Quality Assurance
46	N.Y. University Medical Center New York, N.Y.	Theo. J. Kneip, PhD., Deputy Director Environ. Studies
47	Simpson Timber Co. Research Ctr. Redmond, Wash.	Don F. Laughnan, Sr. Specialist- Finishes
48	The University of Rochester School of Medical & Dentistry & Strong Memorial Hospital Rochester, N.Y.	James W. Sayre, MD. Dir. In-Patient Services Dept. of Pediatrics

COMMENT	NUMBER	CORRESPONDENT	SIGNED BY
	49	Napko Corp. Houston, Tx.	L.B. Odell, FAIC, Tech. Adm. Mgr.
	50	The Children's Hospital Medical Center, Boston, Mass.	Herbert L. Needleman, MD., Dir. Lead Exposure Study
	51	Tempo Products Co. Cleveland, Ohio	David L. Shaar, Sales Manager
	52	State of N.Y., Dept. of Health Albany, N.Y.	Robert P. Whalen, M.D. Commissioner
	53	U.S. Dept. of Commerce, The Asst. Sec. for Science & Tech., Washington, D.C.	Norris A. Lynch
	54	R.E. Mutzberg Atlanta, Ga.	R.E. Mutzberg
	55	Finnaren & Haley, Inc. Ardmore, Pa.	Daniel J. Haley, Jr., President
	56	National Assoc. of Mirror Mfg. Washington, D.C.	James E. Mack, Exec. Sec. & General Counsel



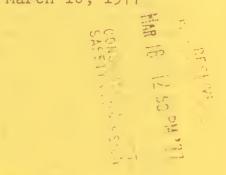


CONSUMERS UNION / A NONPROFIT ORGANIZATION / PUBLISHER OF CONSUMER REPORTS
Washington Office: 1714 MASSACHUSETTS AVE., N.W. WASHINGTON, D.C. 20036/202-785-1906

March 16, 1977

Sadye Dunn, Secretary U.S. Consumer Product Safety Commission 1111 18th Street, N.W. Washington, D.C. 20207

Dear Ms. Dunn:



These are comments of Consumers Union of U.S., Inc. \* on the draft Environmental Impact Statement (EIS) on Lead Content in Paint. Upon review of the draft EIS, we find a number of proposed statements which warrant serious reconsideration. These are discussed, below, in the order in which the issues first appear in the draft statement. The page numbers of the draft EIS portions in issue precede each comment in brackets.

### Degree of Beneficial Impact

[S-3, III-3] The draft EIS states that reduction of the permissible level of lead in residential paints and other products proposed to be covered from 0.5% to 0.06% will result in a "moderately beneficial environmental impact". This <u>seriously</u> undertakes the prospective benefits.

The 0.06% level was originally calculated and recommended to the Congress by the American Academy of Pediatrics. It was intended to provide a margin of safety—given estimated amounts of lead ingested by children with pica for paint and estimated

<sup>\*</sup> Consumers Union is a nonprofit membership organization chartered in 1936 under the laws of the State of New York to provide information, education, and counsel about consumer goods and services and the management of the family income. Consumers Union's income is derived solely from the sale of Consumer Reports, other publications and films. Expenses of occasional public service efforts may be met, in part, by nonrestrictive, noncommercial grants and fees. In addition to reports on Consumers Union's own product testing, Consumer Reports, with its almost 1.8 million circulation, regularly carries articles on health, product safety, marketplace economics, and legislative, judicial and regulatory actions which affect consumer welfare. Consumers Union's publications carry no advertising and receive no commercial support.

rates of absorption of ingested lead across the gut from the stomach into body tissue—five times below the level at which absorbed lead was believed to affect blood metabolism (heme synthesis) and twenty times below the level at which lead was then reported to be associated with more serious medical effects. Lead—Based Paint Poisoning Amendments of 1972, Hearings on S.3080 before the Subcommittee on Health, Committee on Labor and Public Welfare, U.S. Senate (1972), pp. 30-31, 45-58. Since the 0.5% level is almost ten times greater than the 0.06% level, this meant that—on the basis of those calculations—there was no margin of safety with a 0.5% standard for lead's effect on heme synthesis, and a very narrow margin of safety for more serious, associated medical effects.

These calculations assumed no metabolic effects in a young child with blood lead levels of 40 mcgs. lead per dcl. of blood, and extrapolate from the 40 mcg. figure a "daily permissible intake" of lead by young children of 300 mcgs. However, the National Academy of Sciences, in its July, 1976 report to the CPSC, states that more recent evidence shows blood lead levels in the 25-40 mcg./dl. range to be associated with changes in the blood metabolism of young children. This, the NAS reports, requires a downward recalculation of the 300 mcg. daily permissible intake and 40 mcg./ml. "no effect" blood lead level figures.

This means that a 0.06% permissible level would no longer provide the "times five" and "times twenty" margins of safety originally intended. And, depending on how far downward the recommended revision would be recalculated, it could mean that the almost ten times greater 0.5% level would provide no margin of safety whatsoever, even from "more serious" medical events associated with lead absorption.

Therefore, a 0.06% standard may provide a beneficial impact which, far from being merely "moderately beneficial," would be extremely beneficial because it would reduce child exposure to a known toxin from levels which may provide no margin of safety from associated adverse medical effects to levels which provide at least some margin of safety.

## Possible Exemption of Exterior Paints

[S-3; I-A-8, 9; sections II-IV throughout.] The draft statement discusses possible exemption from a 0.06% standard for the so-called "extractive-bearing wood" coatings used to paint inherently moist lumber used in residential construction.

It does not set forth the very serious considerations, testified to by pediatricians at the CPSC hearings in September, 1976, that exterior paint, even when it is not directly accessible to children while on exterior surfaces, eventually comes off the walls in the form of paint flakes or dust and mingles with the dirt along the side of the residential structure. Young children play in dirt, frequently put their dirty hands into their mouth and, thus, the lead-bearing exterior coating finds this indirect path into children's systems. It may be necessary to accept the consequence of more frequent painting of exterior surfaces made of extractive-bearing wood in order to avoid exterior coatings as an additional source of lead to which young children are exposed.

Additionally, the CPSC cannot control end use. The leftover of paints purchased by owners of residential property for exterior application, common experience shows, will sometimes be used for interior application. This greatly increases the danger to the child with paint pica of ingesting such paint.

Because it omits these considerations, the impact statement inadequately discusses the potential environmental impact of a possible exemption for exterior residential paints.

### Climatological Considerations

[I-B-9; III-6, 7.] The draft states that reduction of the permissible level to 0.06% would have a more severe economic impact in the Pacific Northwest and New England, where the combination of cool temperatures and high humidity cause paint to dry more slowly than in other climates. However, there is no citation of supporting evidence or source materials to demonstrate that the use of lead-based paints is significantly higher in these two regions than in other regions of the country. In fact, the spokesman for the National Paint and Coatings Association, Mr. Robert Roland, testified at the CPSC's September hearings that NPCA does not have evidence as to the geographical distribution of lead paint use among the various climatological regions of the nation. Therefore, the assertions in this regard should not be included in the final environmental impact statements unless supporting evidence is obtained.

Further, Consumers Union's Technical Division estimates that the drying time difference between oil paints containing lead driers and those using other driers is no more than twenty to twenty-five percent. And paint without any drier not only will dry adequately over a period of several days, but will dry

with a coat of superior durability and resistance to flaking. Thus, the substitution of another drier for lead creates a mere inconvenience as a trade-off for removal of substantial amounts of a toxic substance from exposure to young children. And even omission of a drier would not make paint formulations technically inadequate under many conditions. We recommend that the final EIS include these considerations.

### Geographical Distribution of Producers

[I-C-l and following.] The draft statement sets forth an extensive discussion of the economic importance of geographical proximity of paint manufacturing plants to customers. The statement does not specifically state what implications this supposedly important cost-control factor has to a potential administrative determination to set a 0.06% standard. The apparent purpose for the discussion lies in the hidden implication that a 0.06% could cause some plant closing and, hence, higher transportation costs which would significantly increase the price of paint.

Whatever the purpose of the discussion, its purpose and point should be made explicit. And if its purpose and point are as suggested here, the discussion is self-contradictory and insufficiently supported by facts and analysis.

The draft EIS indicates that there are now approximately 1,400 paint manufacturing plants belonging to approximately 1,300 - 1,400 companies. In other words, there is only a small excess in number of plants over number of producing firms and, hence, few multi-plant firms. In view of the fact that a number of brands are distributed nationally or on a broad regional basis, this fact would appear to contradict the analysis that close proximity of manufacturing plant to customer is an economically essential characteristic of the industry.

Thus, the final EIS either should include more specific evidence, including a plant location and distribution characteristics analysis of the industry, to support this assertion, or the insufficiently supported analysis should be omitted from the final EIS.

# Effective Date for a More Strict Standard

[II-A-3; III-20; IV-2.] The draft EIS discusses a possible need for a 1 - 3 year period during which manufacturers could reformulate their paints with driers other than lead. This argument appears to be based in part on the assumption that new formulae

must be discovered. In fact, formulae with non-lead driers are not trade secrets known exclusively to the producers of the large volume of non-lead paint now on the market. Producers and sellers or driers other than lead would readily make formulae using these other products known to manufacturers in seeking to sell their products.

Additionally, there are no technological barriers to laboratory analysis of the non-lead paints now on the markets, and the draft EIS indicates no patents barriers to use of currently marketed non-lead paint formulae. Further, it appears inconceivable that, in view of the statutory provision in 1973 for a possible 0.06% lead standard under the Lead-Based Paint Poisoning Prevention Act, and gradual reduction of the permissible level for shipment in commerce under the Federal Hazardous Substances Act, that manufacturers now using lead drier paint formulae have taken no steps to identify, select from among, and test, alternatives to lead driers. Certainly, as a matter of equity, those now producing the lead-based paints which would come within the CPSC's proposed regulation have had more than adequate notice to do so. To have failed to do so can only be deemed to be, at best, risky business judgment.

The only justifications for a delay of more than a few weeks in implementation of a 0.06% standard would be (a) need to select a supplier of non-lead driers and to receive shipments of a supply of substitutes, (b) need for a manufacturing facility "housecleaning" to assure that non-lead paints will not be contaminated with traces of lead remaining from manufacturing operations using a lead drier formula, and (c) possibly, a period to test the actual production run formulae for unleaded paint, assuming that reasonable steps were taken prior to the Commission's decision in anticipation of possible promulgation of a 0.06% standard.

The CPSC should determine what period is reasonably necessary for these purposes, and allow no more delay than that for implementation of the 0.06% standard.

We strongly urge that the final EIS reflect these considerations.

Sincerely,

Mark Silbergeld

Attorney, Washington Office



6369 Old Peachtree Road Norcross, Georgia 30071 404 448-4511 CC2-77-2

# WYAN DENTE Paint Products Company

February 4, 1977

Secretary
Consumer Products Safety Commission
Washington, D.C. 20207

Dear Mr. Secretary:

In reviewing the draft of your environmental impact statement concerning the limiting of lead in paints on December 20, 1976, we find disagreement with the statement on page 111-15 since Graphics Arts Coatings are a major product of our company and a major portion of these coatings are formulated with lead containing pigments. These are not consumer products and are used strictly by professional painters on exterior identification signs. We feel that the cost of the use of these coatings they should still be considered special purpose coatings and as such have an exemption from the regulation.

We would appreciate your consideration of the above.

Cordially yours,

Robert R. Kern Vice President & General Manager

RRK:db

FEB 10 & 30 MM 777



### CITY OF BALTIMORE

WILLIAM DONALD SCHAEFER, Mayor



4940 Eastern Avenue, Baltimore, Maryland 21224

Baltimore City Hospital

March 9, 1977

Sadye E. Dunn Secretary Consumer Product Safety Commission Washington, D. C. 20207

The Country of the Co In re: Draft Environmental Impact Statement on Lead Content in Paint, dated January 19, 1977, Contract No. CPSC-C-77-

Dear Ms. Dunn:

Thank you for the opportunity to comment upon the above-named draft document. I shall first comment on several points in the body of the document and finally on the five basic alternatives for regulation by CPSC.

Throughout the document, there are references to the replacement of lead in driers by other metals, including calcium, zinc, iron, manganese, cobalt and zirconium. Lead, cadmium and mercury are non-essential trace metals whose only known effects are adverse. Poisoning eventually results when these metals are ingested daily in microgram amounts. On the other hand, calcium, zinc, iron and manganese are essential elements with daily dietary requirements in milligram amounts. 1 From the viewpoint of human health, there is greater concern about deficiencies of calcium, zinc and iron than there is about their toxicity. 2, 3 Furthermore, there appears to be a reasonable latitude between the required and the toxic amounts of these elements. There would appear to be a considerable margin of safety if calcium, zinc, iron or manganese were substituted for lead in paint driers. The nutritional requirement for cobalt is infinitesimally small; however, adults have tolerated the daily administration of 50 mg of cobalt chloride for up to two months without toxic side effects. Zirconium does have toxic effects. Such considerations could play some role in the choice of substitutes for lead in driers.

On page II-A-4, the following statement appears: "It is possible that exterior trade sales paints could also be exempted. " Earlier in the document, it is stated that trade sales paints are to be distinguished from industrial coatings and that trade sales paints are distributed through wholesale and retail channels. I interpret this to mean that exterior trade sales paints would include paints sold for the covering of porches, fences, railings, exterior windowsills and frames, exterior doors and frames and siding. These definitely are areas of residences which are accessible to young children and, furthermore, lead paint poisoning has been traced to the consumption of lead-containing paints by young children, from these areas. I would strongly oppose any such exemption. It certainly would not be in line with the intent of the Lead-Based Paint Poisoning Prevention Act. Although I find no further discussion of this possibility in the document, I would strongly oppose an exemption that applies to paints and coatings that can be applied to the exterior of residences in areas accessible to young children.

On page I-B-17, it is stated that domestic toy manufacturers are apparently now meeting the 0.06% lead standard, but that foreign toy manufacturers have a voluntary standard of 0.25% lead. One should be particularly stringent when dealing with toys intended for infants and toddlers; i. e., children <three to four years of age in whom the mouthing of toys is a common activity. One might consider the possibility of exempting imported antique toys which are collectors' items and not intended for use by children.

Basic Regulatory Alternatives. I support the intent to regulate the lead content of paints under CPSA and not under FHSA. Since regulation under FHSA would apply only to shipments of paints in interstate commerce and since the document indicates that substantial amounts of paint and surface coatings are manufactured and distributed intrastate, regulation under FHSA would appear to be almost useless. On page II-A-8. there appears a list of special purpose coatings which may be specifically excluded from the banned hazardous substances regulation by the Commission. These special purpose paints and coatings include artists' paints. automotive, agricultural and industrial equipment, as well as a number of other special purpose paints. It is also proposed under Alternative No. 3 on page II-A-9 that metal furniture, metal window dressings and household appliances be excluded. In my opinion, all of the exclusions proposed under Alternative No. 3 are reasonable and within the intent of LBPPPA. With the possible exception of primer coatings for redwood and cedar and the misuse of these products to cover exterior and interior walls and door frames, they appear to pose little, if any, hazard to young children with pica who are at risk for lead poisoning.

Ms. S. E. Dunn March 9, 1977

The choices between Alternatives Nos. 3, 4 and 5 appear to be primarily economic. In Recommendations for the Prevention of Lead Poisoning in Children (National Academy of Sciences, July, 1976), the NAS Committee recommended that variances from the 0.06% limit be allowed only on the basis of demonstrated economic hardship and that none be allowed to extend beyond five years.

Finally, it is stated that action by the Consumer Product Safety Commission to lower the permissible level of lead in paint to 0.06% or less will have "a moderate beneficial environmental health impact on children with pica for paint who may ingest chips and peelings of such paints". On October 25-27, 1976, a conference was held under the auspices of the U. S. Environmental Protection Agency in Hendersonville. N. C., at which current work on the toxicity of lead in animal models was discussed. Data presented at this conference confirms earlier work cited in the report by the National Academy of Sciences to the Consumer Product Safety Commission (Recommendations for the Prevention of Lead Poisoning in Children). These newer data confirm that blood lead levels in the 50-60 µg range can lead to later slowed learning and impaired visual discrimination. Prevention of these effects on the developing brain constitute a substantial or major impact on the health of children. You may wish to contact Lawrence W. Reiter, Ph. D. (Health Effects Research Laboratory, U. S. Environmental Protection Agency, Research Triangle Park, N.C. 27711), the organizer of this conference who is preparing a report on the conference proceedings.

Thank you for the opportunity to comment on this very thorough document.

Yours sincerely,

JJC:ov Enc.

cc: Mr. Ralph C. Wands
Director, Advisory Center
on Toxicology
National Research Council
2101 Constitution Ave.
Wash., D. C. 20418

J. Julian Chisolm, Jr., M.D.

Chairman, <u>ad hoc</u> Committee on Lead in Paint, National Research Council, National Academy of Sciences

#### References

- 1. National Academy of Sciences, Recommended Dietary Allowances, Eighth Edition 1974, Wash., D.C., 129 pages.
- 2. Underwood, E. J., Trace Elements in Human and Animal Nutrition, 3rd Edition, Academic Press, New York, 1971, 543 pages.
- 3. National Academy of Sciences, Geochemistry and the Environment, Volume I, The Relation of Selected Trace Elements to Health and Disease, Wash., D. C. 1974, 113 pages.





# THE GILBERT SPRUANCE CO.

RICHMOND AND TIOGA STREETS · PHILADELPHIA, PENNSYLVANIA 19134

MANUFACTURERS OF WOOD AND METAL FINISHING PRODUCTS

March 8, 1977 FET 11 30 M 11 3

Secretary
Consumer Product Safety Commission
1111 - 18th Street, N.W.
Washington, D.C. 20207

Dear Mr. Secretary:

We are writing in response to your request for comments about the Draft on Lead Content in Paint (CPSC notice, Federal Register 2/16/77), and specifically the reference to exempting certain classes of coatings. Our concern is with coatings for furniture and the need for defining this category.

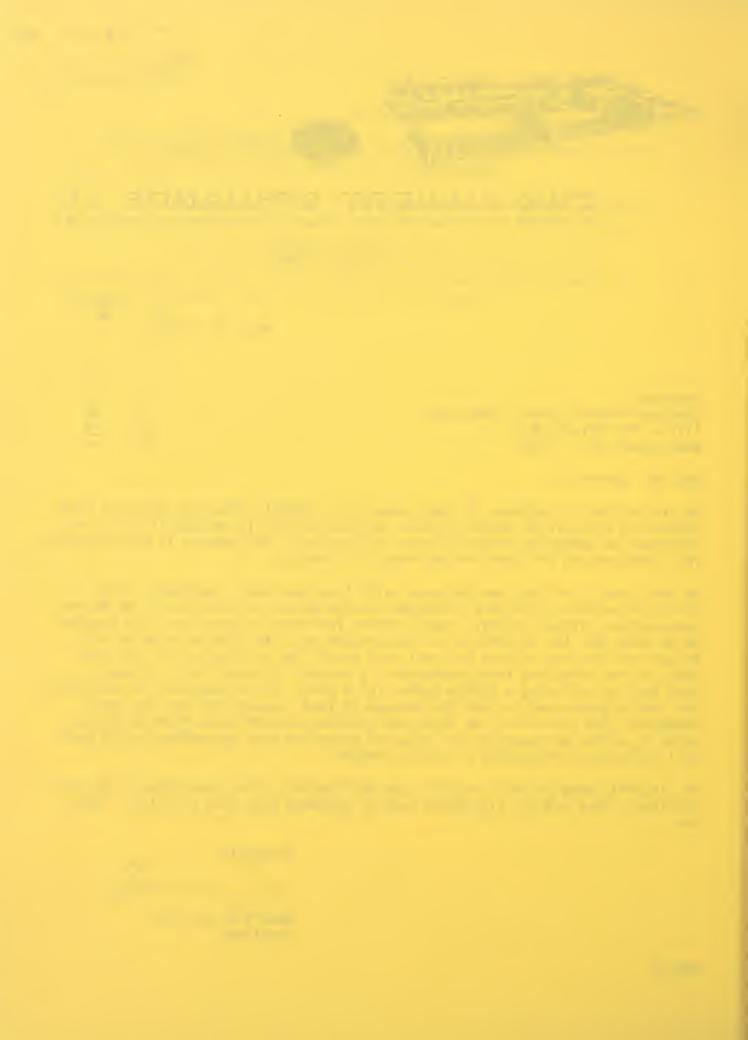
We are a small coatings manufacturer, with large and small customers in the furniture business, who have expressed concern about the regulation. We do not know whether kitchen cabinets, metal office furniture, pianos, etc. are covered. We do know that the origination of the problem was with flaking paint in old houses and that now without any real hard proof, the problem has spilled over into an area affecting large segments of a variety of industries. It would seem that we are using a sledge hammer for a gnat. It is expensive to substitute for lead pigments and to test for absence of lead - expecially for the small companies like ourselves. We think the original concern about flaking of old paint is valid, but question the value of extending this to products which have no likelihood of presenting a similar concern.

We sincerely hope you will restrict the application of the regulation to juvenile furniture, toys and the like where such an approach does have validity. Thank you.

Sincerely,

Robert M. Cox, Sr.

President





# The Commonwealth of Massachusetts Department of Public Health

CC277-5

Childhood Lead Poisoning Prevention Program 305 South Street, Jamaica Plain, Mass. 02130

(617) 522-3700

March 8, 1977

AR I H 12 PH

Secretary
Consumer Product Safety Commission
Washington, D. C. 20207

Dear Secretary:

I have reviewed the Draft Environmental Impact Statement on Lead Content in Paint and I fully support the proposal to regulate paint and surface coating materials containing more than 0.06% lead. I concur with testimony given by the previous Director of this program on the subject and offer the following excerpt from his June 16, 1977 testimony:

"The reduction in allowable concentration of lead in paint allowed to be sold for use in or on residences from 0.5% to 0.06% makes eminent good sense. It is the total amount of lead that a child ingests which produces lead poisoning. The repeated ingestion of 150 micrograms of lead from food, drink, and inhaled air will exceed the maximal permitted daily intake of lead for a young child, and will poison the child. 150 micrograms is tha amount of lead found in a single coat of 0.5% leaded paint on an area about the size of a little fingernail. Obviously, it is not extremely difficult nor unlikely for a child to ingest this amount of paint daily. Equally obvious is the fact that a child must eat eight times as much paint of 0.06% lead concentration as paint with 0.5% lead to ingest the same amount of lead. Furthermore, if it were feasible to produce a paint with no lead whatsoever, it would be even safer. Since the effects of lead intake are cumulative, even a little bit of poison is not good for the child." (given by Dr. Robert Klein before Senate Subcommittee on Health, June 16, 1977)

I look forward to the adoption of this standard and bringing the Mass. Regulations into conformity with it.

S incerely,

Richard W. Clapp, M.P.H.

Richard W. Clapp

Director

cc: Governor's Advisory Committee on Childhood Lead Poisoning





# ZAC-LAC PAINT & LACQUER COMPANY

P. O. BOX 92217 . 350 SIMPSON STREET, N.W. ATLANTA, GA. 30314

RECEIVED CC2-17-6

# 17/3/11/6

TELEPHONE 522-5998

DOTES, MIRE FRODUCT SAFETY JUMP SSION

March 7, 1977

Secretary Consumer Product Safety Commission 1111 - 18th Street, N.W. Washington, D.C. 20207

Dear Sir:

We feel strongly that exemptions for all the special purpose coatings should be effected for the following reasons.

There are no substitutes for the four items in our line of the twenty two that are used to tint automobile colors.

In general, not exempting these items would have no material effect on health, for it is applied by adult specialists, under controlled conditions, and does not peel and chip as those materials that would be exposed to children.

The total economic effects of denying the exemptions, at least for us, would be all but fatal.

Respectfully yours

Sincerely, ZAC LAC PAINT & LACQUER CO.

14/ 4711 K L.H. Jones

President

LHJ/am





(\*(\*) /.1.7

# southern protective products company

March 9, 1977

Secretary
Consumer Product Safety Commission
1111 - 18th Street, N. W.
Washington, D. C. 20207

HAM II II 31 AM 'TT

Re: Lead in Paint

Dear Mr. Secretary:

This letter is in support of the NPCA request for exemptions for special purpose coatings.

Our company is a small one and we find that the failure to grant these exemptions would create a serious impact on our ability to do business. It would also be a serious blow to our many product finish customers.

In particular, we believe that baked enamel finishes on outside metal furniture, stoves, and on appliances should be exempted since these are not "chewable" surfaces and the small amounts of lead in them cannot be ingested by children. Since paint technology has not yet found satisfactory substitutes for some of the lead uses, failure to exempt these would severely damage the lawn furniture, stoves and appliance industries.

Your consideration will be appreciated.

Cordially,

SOUTHERN PROTECTIVE PRODUCTS CO.

Larry Hecht, President

LH/ej
manufacturers of
calking, sealants, adhesives,
asphalt products and
industrial paints in since 1922



DIC

TIME TESTED

# Trinity Coatings Company

Division of G & W Enterprises

926-6811 • P. O. Box 721 • Fort Worth, Texas 76101 ;

March 8, 1977

Secretary
Consumer Product Safety Commission
1111 Eighteenth Street, N.W.
Washington, D.C. 20207

#### Gentlemen:

It is with a great deal of concern that we write this letter after much thoughtful consideration. We wish to refer to proposals on "lead-based" paint, which, we understand, would regulate these products under the CPSA, instead of the FHSA.

Being a manufacturer of many different types of coatings which are sold and used throughout many areas in the United States, we are vitally concerned with any rules or regulations which would affect our industry. We take great pride in producing coatings of the highest quality at the most economical prices feasible within the realm of good business practices. A great deal of time and money is spent in formulating these products in our Research Laboratory to assure their quality and performance.

Safety, both in manufacturing processes and in the use of the final product, is one of primary concerns, as it is with all reputable coatings manufacturers. However, we feel that some of the proposed regulations on "lead-based" Paints should have exemptions included, specifically those listed below:

- 1. All metal furniture, because of the methods of application of finishes and the fact that they have hard, unchewable surfaces.
- 2. Other types of furniture where the likelihood of chewing and the availability to children of any lead in a coating is practically non-existent.
- 3. Coatings for mirror-backing, which would be virtually impossible for a child to have access to chew.
- 4. Appliances, which are not considered articles of furniture and thus, should not be included in the furniture regulation or, if included, should be specifically exempt.

Page 2 Secretary Consumer Product Safety Commission

March 8, 1977

Therefore, we request your serious consideration of these various points. We feel that a denial of exemptions for coatings manufactured for use in areas where children would not be affected would have a decidedly adverse economic impact on our company's operation, and in addition, would serve no useful purpose. We urge that exemptions covering these coatings be allowed.

Respectfully,

TRINITY COATINGS COMPANY

Mel Gardner (.m.e)

President

MG:mc

#77031426 DIC

DO

(·(:, //.;

# THE DEAN & BARRY CO.

MANUFACTURERS OF

COLUMBUS, OHIO 43215

March 8, 1977

OFFICE AND FACTORY 296 MARCONI BLVD PHONE 224-3131 AREA CODE 614

HAR IN S 59 PH 77

Secretary
Consumer Product Safety Commission
1111 - 18th Street, NW
Washington, D. C. 20207

Dear Sir:

Now that the ruling finally has been made that .06% lead will be mandatory for consumer paint products, I think it is extremely urgent that the exemption for the seven classes of products requested by the National Paint Coatings Association be given favorable consideration. So far as these seven categories are concerned, our company would be involved with two of the seven--Non-staining Wood Primers and Traffic Paint.

Treating these individually, to the best of my knowledge, there are no successful formulations for Non-staining Primers that do not contain lead. Also, insomuch as these products are applied on the exterior of houses, and only on certain type siding, the exposure to children is minimal. If these primers are not available, it will result in many unsightly stained paint jobs, particularly where latex paint is used over cedar and redwood siding.

As for the Traffic Paint, if it were not permitted to use the lead pigment for Yellow Traffic Paint, the cost would escalate immeasurably and the durability of the yellow color would be greatly reduced. Insomuch as Traffic Paint is used on highways, parking lots, and in industrial plants, the exposure to children, once again, is negligible.

Therefore, I hope you will give favorable consideration to the exemption request for the seven categories, and particularly to the two noted above. I do not know but what the other five might be equally important to some companies, but in our particular case, we do not manufacture products that come under the other five categories.

Sincerely,

Balus Northon

Robert S. McKay II, President



#77131562 100

CC 1 /7.

# Perfection Paint & Color Company, Inc.

TUE VEY

Manufacturers for Home and Industry

715 E. Maryland Street Indianapolis. Ind. 46202 317-632-4311



March 10, 1977

Secretary, Consumer Products Safety Commission 1111 18th Street, N. W. Washington, D. C. 20207

Dear Sir:

As a manufacturing member of the Paint Industry, we must reluctantly accept the new lead limitation at .06% in paints rather than the previous maximum of .5%. The drop from the .5% to the .06% will not make paint one bit safer than it was before at .5%, because it was 99.9% safe at the higher level. But, at least it will satisfy some of the consumer advocates who do not understand that the danger from lead-based paints comes from that type of paint manufactured 50 years ago.

However, we must request that the exemptions to this Law as listed and requested by the National Paint and Coatings Association be granted.

There are just certain products which cannot be made satisfactorily without the use of lead. For example, if you deny the use of lead chromate in traffic marking paint and require non-lead products, the color will have to be changed to a tan or to white - or the cost per gallon will have to be increased by approximately two to three dollars per gallon. This would, of course, present a great hardship on the budgets of all states and municipalities in having to put a lead-free traffic paint on the highways. I doubt if any children will ever chew the paint from a traffic line.

Other products, such as lead-based metal primers for construction work would be down-graded in quality or much up-graded in price, if rust inhibitive lead pigments were not allowed. This would, of course, present a great hardship on the building industry which is already so high that prices are becoming prohibitive for building new construction in buildings, roads, bridges, etc.

We hope you will grant the exemptions as requested by the National Paint and Coatings Association, who certainly know the field much better than any consumer product commissioners. We are not attempting to make things easier for the Paint Industry; we are only trying to keep inflation down.

Sincerely yours,

George Gable, President

PERFECTION PAINT & COLOR CO., INC.

COLORS FROM

Trendition House

GG: jg

cc: Robert Roland, President

National Paint and Coatings Association

Secretary, Consumer Products Safety Commission Washington, D. C. 20207

P. S. Certainly the use of lead-containing paint should be banned in children's cribs and toys, as it has been for a long time; but it certainly is not necessary to ban it from appliances, refrigerators and furniture which will never be chewed by children.

0621

## EUROPEAN FEDERATION OF TOY MANUFACTURERS' ASSOCIATIONS

EUROPAÏSCHEN FÖDERATION DER SPIELWARENHERSTELLER FÉDÉRATION EUROPÉENNE DES SYNDICATS DE FABRICANTS DE JOUETS FEDERAZIONE EUROPEA DEI FABBRICANTI DI GIOCATTOLI

All communications to

80 CAMBERWELL ROAD, LONDON SE5 0EG

U.S. Consumer Product Safety Commission, Washington, D.C. 20207, U.S.A.

28th February, 1977

Dear Sir,

This Federation (FEJ) wishes to express its appreciation of the opportunity to make comment on the draft Environmental Impact Statement of Yead Content in Paint dated 19th January, 1977 (Contract No. CPSC-C-77-0009). Whilst it is understood that the Commission envisages regulating the lead level in paints over a wider field, FEJ submits its comments basically in relation to toys and similar articles intended for use by children: its competence is confined to this field. It is, however, clear that the wider application must be of benefit to the toy industry, which is a relatively small consumer of paint, in that there will be pressures for research and development within the paint industry.

In recognising that the weight of medical opinion supports action to restrict the level of lead (and certain other heavy metals) in paint to which a child may be exposed, FEJ would draw the Commission's attention to the work that has been carried out in Europe over the past 10 years and the ensuing legal requirements in certain countries. Its attention is more particularly directed to the work that has been recently proceeding under the auspices of the European Association for the Harmonisation of Standards (CEN) in the course of the preparation of a European Toy Safety Standard and is now currently being further progressed by a working group of the European Economic Community responsible for the drafting of a directive. Experts in the toxicological field, drawn from national governments, industry and also other interested organisations, have considered in some depth the degree of hazard to which a child may be exposed from heavy metals in paint used on toys.

On the one hand the safety of the child must be taken into full account but on the other the practical problems of the toy manufacturer and his paint supplier are not to be ignored, always provided that the child is not exposed to any unreasonable degree of hazard. The Commission may therefore allow FEJ to draw attention to the conclusion that has been reached in Europe that at the present time, after account has been taken of the limitations of existing technical 'know-how' and recognition given to the problems that inevitably arise in the day-to-day processes of manufacture in the factories, the limit to be applied for lead in paint should be set at 0.25% (2,500 parts per million).

FEJ is aware that there is an opinion held by certain European experts that work should continue in the technicological field to make it commercially practicable to enable this limit to be reduced in the future; such an opinion is to be endorsed. However, to set the limit at a lower level at the present time would seem to be placing an undue responsibility on the toy industry, apart from restricting the range of colours for toys and detracting from their quality in certain circumstances. Adverse consumer comment would be invited on the product, in addition to the toy manufacturer being unduly exposed to a charge of noncompliance with the law.

FEJ welcomes the specific statement that printing inks are not to be covered by the proposed Regulation: experience in Europe shows that considerable confusion for the toy manufacturer will be obviated thereby. It would also wish to record U.S. Consumer Product Safety
Commission

- 2 -

28th February, 1977

its view that artist's paints and related materials could with advantage be exempted from the Regulation, as these are the 'tools' of responsible adults. There would be concern felt, should the Regulation result in a greater reliance on the use of mercury in paint: even at this late stage in the drafting of the European Toy Safety Standard the desirability of the reduction of the permissible level for mercury from 100 parts per million to 50 parts per million is being examined: expert medical opinion has in recent years directed attention to the hazard that exists from the use of this metal.

FEJ therefore wishes to submit the view that Alternative Number 5, (as set out in II-A-10), takes best into account the conflicting factors that arise in the matter. It would welcome the reduction of the lead level in paint to 0.25% and then, as and when technicological advances are made within the paint industry, a further reduction - perhaps by more than one stage.

In Europe, and it is understood also elsewhere, toy manufacture is carried out not only in large factories but also by a considerable number of small manufacturers who cannot immediately avail themselves of all the latest developments, by way of equipment and otherwise: in brief, they are dependent on their suppliers of materials. In such circumstances, to avoid their unwitting failure to comply with the law, there should surely be reasonable tolerances allowed for error and, for example, to take account of contamination.

FEJ believes that its view is closely aligned to that of the Toy Manufacturers of America Inc., both in regard to the necessary safety factor and also to the practical problems that a Regulation can create. It is hopeful that, through the initiative of the International Committee of Toy Industries, harmonisation can be achieved in the not too distant future on a number of important toy safety requirements so that a potential barrier to trade will be removed.

Yours faithfully,

G P Goulde

GRG/cmw

C(2-77-1=

### **DEERE & COMPANY**

JOHN DEERE ROAD, MOLINE, ILLINOIS 61265

MM 13 2 07 PE 17

SAFETY SUBLIGATION

14 March 1977

Secretary
Consumer Product Safety Commission
Washington, D.C. 20207

Dear Secretary:

Deere & Company herewith submits its written comments to the Draft Environmental Impact Statement on Lead Content in Paint which is dated 19 January 1977.

Deere & Company is one of the largest manufacturers of agricultural and industrial equipment. In addition Deere produces lawn and garden tractors, snowmobiles, outdoor maintenance equipment, and a few leisure-time items. These products are all sold under the trade name "John Deere."

Deere is not opposed to lead content in paint regulation as long as the harm to be rectified is addressed in a regulation that properly reflects the scope of the harm. Deere feels that the proposed regulation could have an unnecessarily adverse impact if the regulation is written so that it is overbroad in scope.

Deere's association with paint is twofold: most of the paint the company purchases is used as the original coating on the machines; however a portion is packaged and marketed as refinish and touchup paint. The paint is specially matched to the original equipment coats. It is also formulated so that it will be able to endure the harsh conditions in agricultural fields, exposure to agricultural chemicals, prolonged exposure to sunlight, and adverse weather conditions.

Refinish and touchup paints are currently marketed under the exemption proposed by the National Paint and Coatings Association to the Federal Hazardous Substances Act regulation which was first issued in 1972. Several of Deere's paints contain in excess of 0.5% lead. The company does print warnings on all lead-based paint labels that such paint contains lead and should not be applied to anything to which children might commonly be exposed.

Deere & Company would like to comment on this exemption as it is discussed in the draft environmental impact statement of 19 January 1977. Since Deere & Company is concerned about only that part of the exemption which addresses itself to touchup and refinish coastings for agricultural, industrial, lawn and garden equipment and for motorized recreational vehicles, that is the only issue this comment will discuss.

#### **DEERE & COMPANY**

Page two Secretary Consumer Product Safety Commission 14 March 1977

Deere understands that the Consumer Product Safety Commission (CPSC) is basically trying to protect young children from steady exposure to leadbearing paints. In order to accomplish this goal in a realistic manner, the CPSC must also consider the negative effects a lead-based paint ban would have on the economy and the environment.

Deere & Company advocates the retention of the present exemption in whatever regulation is finally promulgated by the CPSC. Deere feels that the harmful effects its lead-based refinish and touchup coastings would have on children is negligible while the costs that would be imposed on both Deere and its paint-buying customers if the exemption is not allowed would be substantial.

Deere & Company markets its equipment through an independent dealer system. These dealers are separate business entities; they usually concentrate on one line of Deere equipment, such as agricultural or industrial machinery. The paints that Deere & Company markets as an accommodation in conjunction with equipment are offered for touchup and refinish use; such touchup and refinish work is performed by both the dealer and customer.

A large percentage of the paints Deere sells do not even reach the consumer. They are used by the dealer in his shop work. In February, 1977, Deere conducted a national cross-section survey of 20 of its dealers that have ordered the largest quantity of paint and asked them how they used the paint they purchased from Deere & Company. With respect to the paint packaged for brush or non-aerosol spray application the dealers indicated that 44% was used in the shop while 56% was sold at retail. With respect to the paint in aerosol cans, the dealers indicated that 33% was used in the shop while 67% was sold at retail. Therefore, any potential harmful exposure to the consumer is drastically lessened since much of Deere's refinish paints never leave the dealer's shop; rather, these paints are used to refinish and touchup customers' equipment in shop repair work.

Figures used in the text are averages -- 3/4 of the customers said they used the paint only to refinish and touchup equipment.

<sup>(</sup>a) These dealers were asked to give figures on the amount of paint sold at retail and on the amount of paint used in the shop. In addition, each dealer was asked to contact five of his customers and ask them how they used the paint they purchased from him. Customers were given four categories of response:

<sup>1.</sup> Touch-up and Refinish Equipment

<sup>2.</sup> Paint Items in Household, Including Walls and Porches

<sup>3.</sup> Paint Children's Toys, Including Swingsets

<sup>4.</sup> Paint Items in Barn, Including Barn

#### **DEERE & COMPANY**

Page three Secretary Consumer Product Safety Commission 14 March 1977

Retail customers indicated that 97% of their John Deere paint was used to refinish and touchup equipment. They indicated that 2.6% was used to paint items in and around the barn, including the barn itself. Only a total of 1% of the use was in response to categories 2 and 3. Therefore, Deere & Company believes that because of the manner in which the company's paint is sold and because of the manner in which its customers use the paint that the paint is unlikely to end up on items to which children might commonly be exposed.

Since 1972 Deere has been cooperatively working with its several paint suppliers to develop an acceptable low-lead paint. To date these efforts have not produced paints of comparable cost and quality to those presently marketed.

Deere has run extensive tests on over 100 low-lead paints which correspond to its present corporate color line-up. Of these less than one-third met minimum application and performance requirements. This minimum standard is lower than the standard currently applied to Deere's paints. In fact, if Deere were to apply its present quality requirements on these low-lead substitutes, only 3-5 of the greens and yellows, out of more than 100 tested, could meet these standards. And if Deere were to presently adopt these low-lead paints, the cost to the company would rise anywhere from 30-300%, depending on the specific color.

In general these low-lead substitutes have poor color stability. After being exposed to the elements for over a period of time they soon fade. In addition, they are inferior in gloss and sheen retention. Deere's greatest difficulty in finding an acceptable low-lead substitute, both from the quality and cost viewpoint, lies in the industrial yellow coating.

In addition the low-lead substitutes require different raw materials than those presently in use in the leaded paints. Deere's suppliers state that if a massive shift is required by regulatory action, the paint industry presently lacks the capacity to supply the low-lead paints that would be required. It would take the paint industry some time to switch their tooling and other equipment to meet a sudden large demand for low-lead paints. So even if the regulation were to require a massive shift to low-lead paints, it would be impossible, practically speaking, since there is not that much low-lead paint available.

For the preceding reasons Deere & Company urges the CPSC to maintain the exemption for touchup and refinish paints in formulating its new regulation under the Consumer Product Safety Act. Deere feels that when the risks are balanced against the costs, the latter wins the balancing test. As a less desirable alternative, Deere would urge the CPSC to postpone the effective date of the regulation vis-a-vis touchup and refinish paints. This would

### **DEERE & COMPANY**

Page four Secretary Consumer Product Safety Commission 14 March 1977

give the industry more time to develop acceptable low-lead paints and to tool up to supply the increased demand. Deere feels that if the CPSC ignores these considerations and denies the exemption, it could find itself with an unenforceable regulation.

Sincerely,

Kathleen R. Gibson

R. GWAN

Attorney

KRG/gg

++> 121612 KM

# **DEERE & COMPANY**

JOHN DEERE ROAD, MOLINE, ILLINOIS 61265

(°C) /1 /1

Lett 12 to the first of

THE STATE OF THE S

Law Department

14 March 1977

Secretary Consumer Product Safety Commission Washington, D.C. 20207

Dear Secretary:

Enclosed are five copies of Deere & Company's comments to the Drafe Environmental Impact Statement on Lead Content in Paint.

If you have any questions, please contact me at 309/792-4840.

Sincerely,

Kathleen R. Gibson

Attorney

KRG/gg

Enclosures



March 10, 1977

HAR 17 - 36 04 177

THE ENTERPRISE COMPANIES

1191 SOUTH WHEELING ROAD WHEELING, ILLINOIS 60090 312/541-9000

CC2-17-13

Ms. Sayde E. Dunn Secretary, Consumer Product Safety Commission 1111 18th Street, N.W. Washington D.C. 20207

Dear Ms. Dunn:

The opportunity to express our position and views regarding the "Lead in Paint Issue" is greatly appreciated. We fully support former Chairman Richard O. Simpson's December 23, 1974, report to Congress in which he concluded 0.5% lead as a "Safe Level" with the interpretation of "Safe" as "a level where we have a reasonable assurance, with expected exposures, of absence of serious toxic effects."

We are well aware that the issue is not only factual, but also political and very emotional.

The law requires the Consumer Product Safety Commission to determine a "Safe Level" of lead in paint, not over 0.5%. It does not permit a conclusion that a level of 0.5% lead or some lower level is as safe as 0.06%. This places the Commissioners in a very difficult position. It is not possible to state that any level of lead is a "Safe Level" any more than it is possible to state that it is safe to ingest any non-food product.

Our company has not used Lead Pigments in the formulation of Interior Residential Paints for over 25 years, nor any lead containing white pigments for over 40 years.

Realizing the nature of the issue and that a standard of 0.06% lead seemed probable, we discontinued the use of Lead Driers in all Interior Residential Coatings during 1973. By this time, our research indicated this was possible without creating too many serious problems. The consumer receives a product of equal quality after it has dried. However, under poor drying conditions, the products require a longer time to dry.

(continued)



The elimination of Lead Driers from Exterior Oil House Paints was much more difficult. A complete reformulation was required. It was necessary to use an alkyd modification in order to have satisfactory drying in certain areas of the country where poor drying conditions are normal a large part of the time.

We discontinued the manufacture of our Non-Staining Exterior Wood Primer which was formulated with a Lead Pigment even though it was one of the exempt Special Purpose Coatings to be marketed solely for use on Redwood or Cedar. The pigment used in it is white and contains a high percentage of lead. The product created a serious lead contamination problem being both white and having a high lead content.

The elimination of all lead containing white pigments from our formulations improved our ability to spot any potential contamination. White paint amounts to over 50% of our production; therefore, more time and effort can be used to locate and prevent contamination in equipment used for other products.

Discontinuing our Non-Staining Primer placed us in a slight marketing disadvantage; however, all factors had to be considered.

After studying the "Draft Environmental Impact Statement on Lead Content in Paint," dated January 19, 1977, issued by the Consumer Product Safety Commission, we offer the following comments:

Page 111-15 under Agricultural equipment refinishing a "Moderate Adverse Impact" is stated and that pigments are not a problem with the exception of Caterpiller Yellow, which requires the use of lead pigments for exact replication. This is completely misleading. It should be stated a "Major Adverse Impact" because most of the colors used on Agricultural Equipment are made with lead pigments. The main colors are Yellow, Orange, Red and Green, and all of them use lead pigments.

(continued)

## Alternate No. 1

It certainly would be more desireable and less costly to retain the 0.5% lead level under Alternate No. 1 or even a 0.2% level with a regulation which would specify that no lead could be added, if only to reduce the excessive monitoring required under a 0.06% Lead Standard. The cost of monitoring will be a serious financial impact for small manufacturers where an increase of 10 or 20 cents per gallon may be required for lead analysis.

Our objection to Alternate No. 1 is based upon the fact that the special coating issue is not resolved.

## Alternate No. 2

It is completely unacceptable because the specific exemptions for Special Purpose Coatings are denied. This denial could eventually have a yearly financial cost impact of over \$250,000,000. It would not only eliminate the use of Lead Pigments, which are very important for proper performance in these coatings, but eventually it would eliminate these pigments from Industrial Coatings which are used as the original finish. It is necessary to use the same pigments in refinish or touch up coatings as is used in the original coating; otherwise, there can be no color match. The materials will be metameric.

The elimination of lead pigments in these coatings will increase the raw material cost 50% to 100% depending upon the color. It could even exceed this if the use of Vat Dyes are required to provide satisfactory color retention for certain exterior coatings. Not only will there be an excessive cost increase but the quality of many products will be inferior. Some may require 2 coats, whereas only 1 coat would be needed if the product was made with lead pigments. This data is based upon our laboratory evaluation of various coatings using lead pigments and non-lead pigment to produce similar colors.

This will create a situation where everyone must pay considerably more because some one individual might completely disregard the Directions and the Warnings and misuse the product.

(continued)

### Alternates No. 3, No. 4, and No. 5

We can support either of these although a slightly higher standard including a regulation prohibiting the use of added lead would be more desireable. It would reduce the necessity of excessive monitoring as we stated in our remarks under Alternate No. 1.

## Alternates No. 4 and No. 5

They would permit smaller companies, who have not been able to reformulate without lead drier, an opportunity to do additional research in order to meet the 0.06% lead standard.

An exemption for certain household articles, finished with lead containing coatings, such as Metal Furniture, Venetian Blinds and Appliances seems proper, as they certainly cannot contribute to the lead ingestion problem.

We hope the above information and comments will be helpful to the Commissioners in their deliberations and final consideration in resolving the Lead in Paint Issue.

Sincerely,

THE ENTERPRISE COMPANIES

Orthur F. Botinost

Arthur F. Bohnert Vice-President

Research and Development

AFB:sc



CC2-77-14

March 14, 1977

Office of the Secretary Consumer Products Safety Commission 1111 18th Street N.W. Washington, D.C. 20207

Subject: Comments on the Consumer
Product Safety Commission
Notice on Lead Based Paint
in the Feb. 16, 1977
Federal Register Vol.43, No.32

#### Gentlemen:

International Harvester Company appreciates the opportunity to present its comments on the proposed ban on paints having a lead content in excess of .06 and up to .5 percent. Our company is one of the largest manufacturers of agricultural and industrial equipment in the world. The extensive research and development work that goes into providing safe products for our customers provides us with a good overview of the work the Consumer Product Safety Commission is doing.

We concur with the intent of the CPSC to protect consumers, and in this case children, from excessive lead levels in paints intended for use on toys, furniture, and other items used in and about the home. Our products, whether they be colored red, white, or yellow, cannot by any stretch of the imagination, fall into this category. Agricultural and industrial products are used outdoors, remain outdoors, remain remote from the home as such, and have a substantially longer life span than most consumer products.

Since large sums of money are invested in the purchase of our products, touch-up and refinishing of this equipment is very common. Because of the weathering and constant outdoor use, durability, rust and corrosion protection, and extended life of these products is essential. A complete ban on the use of lead containing paints would impose a serious penalty on our products and a hardship on our customers.

Lead based pigments, in particular lead chromates, are currently used in the majority of outdoor product finishes because of their outstanding durability and because they significantly enhance the corrosion protection required. Switching to water-thinned paints introduces other undesirable compounds in the paints, while producing an inferior product.

In the Federal Register of March 11, 1972, the Commissioner of Food and Drugs published a proposal to declare paint and other similar surface coating, for use in and around the household, banned as a hazardous substance if shipped in interstate commerce after Dec. 31, 1972, providing the lead content was in excess of .05%. On Sept. 21, 1972, the National Paint and Coatings Association filed a petition with the Commission of the Food and Drug Administration asking that 7 classes of coating products be declared outside the scope of the March 11th order. Those classes were as follows:

- 1. Automotive, agricultural and industrial equipment refinish coatings.
- 2. Industrial maintenance coatings including traffic and safety marking coatings.
- 3. Graphic art coatings.
- 4. Touch up coatings for automobiles, agricultural and industrial equipment.
- 5. Exterior marine coatings.
- 6. Exterior rubber based roof coatings.
- 7. Exterior prime coatings for wood.

To the best of our knowledge, this proposal was never acted upon nor are there presently any restrictions on lead content in industrial finishes. We strongly urge the Consumer Product Safety Commission to grant these exemptions.

In conclusion, we support the goals and objectives of the CPSC, however, banning the use of lead in all paints including those used for touch up and refinishing purposes where rust and corrosion prevention is required and on applications so remote from children seem to be totally unjustified and not in the best interest of the public. We strongly urge the CPSC to grant an exception in these two areas for use on our products.

Very truly yours,

Ronald F. Zitke Chief Engineer

Operator Environment & Safety

bw



( C) 77-15

# BLATZ PAINT COMPANY, INC

319 South Shelby Street Louisville, Kentucky 40202 Area 502 584.8364

Tine Tinishes Since 1879

March 14, 1977



Secretary
Consumer Product Safety Commission
1111-18th Street N.W.
Washington, D.C. 20207

Dear Secretary:

The CPSC in its notice in the Federal Register February 16, 1977 invited comments concerning multiple regulatory proposals on "lead-based" paint. (41 F.R. 33636-40)

The industry has requested special exemption for seven categories of special purpose coatings.

By your own admission, the economic impact of denying the exemptions "cannot be accurately assessed." This states in essence that you have not made an economic evaluation. It is evident however that you have made the assumption that it will be slight, thereby allowing you to presume that even though beneficial health and environment impact would be "slight", the denial would have little impact on the paint industry. Wrong!

The categories considered represent approximately \$850,000,000 in product sales at the manufacturing level. Reformulation of products involved with compliance in other categories indicate a minimum Raw Cost increase to the end user of 20%-25%. Coupled with this cost is reformulation expense to the paint supplier. This can easily (and particular for the smaller business unit) increase laboratory cost by 2%-3% in the year of reformulation. The raw cost increase is then subject to our annual increase of 6%/annum. The net effect is to squeeze the manufacturer and the end user in terms of pass through costs, thus forcing considerable erosion in operating income for both. Assuming full pass through cost to the consumer, the product purchase price of all end use items would result in increased accommodation by the consumer of \$1.7 million

to \$2.2 million/year with no change in the functionality of the end use product. This new higher base would in turn be subject to 6% annual increase in raw cost. I would hardly judge this to be a slight impact either to the manufacturer or to the consumer. I agree with your assumption that the benefit to health and environment would. I recommend that you permit the exemptions.

Sincerely,

BLATZ PAINT CO. / INC.

Lee Kitchen
/ President

LK:tk

cc: Gene Snyder

Ron Mazzoli



MAR 10 1 01 °U'?

March 10, 1977

SAF IN THAT SIGN

CC2-77-16

Secretary
Consumer Product Safety Commission
1111 - 18th Street N. W.
Washington, D. C. 20207

#### Gentlemen:

Reference is made to, "Draft Environmental Impact Statement on Lead Content in Paint", discussed in your notice published in the Federal Register of February 16, 1977.

It is our purpose to assist you in assessing the economic effects of denying the exemptions for special purpose coatings. This position is taken in view of your stated recognition that beneficial health effects and beneficial environmental impact as a result of such denial would be slight.

We have been manufacturing coatings since 1908 and over the years have had to develop and maintain a high level of skill, awareness and technical knowledge concerning what is required in the coatings industry.

Technical developments have not been achieved that will permit us to manufacture the seven "special purpose" coatings to meet the underlying needs and still fall within the 0.06% lead limit.

Each of the proposed seven exempt coatings are required for economic reasons in terms of cost to the public, protection to the surface and safety to the user.

The extent of the adverse economic impact on our economy in denying the exemptions would be substantial.

Sincerely,

PRESERVATIVE PAINT COMPANY

W. L. Smith President

WLS:cg

IPRESERVATIVE PAINT CO. 15400-5410 AIRPORT WAY SOUTH SEATTLE, WA. 98108 · 763-0300



#: 7131831



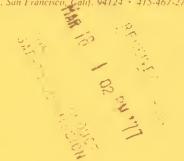


CC 2-77-17

DANACOLORS, INC.

1833 Egbert Ave., P.O. Box 24212, San Francisco, Galif. 94124 • 415-467-2710

March 10, 1977



Ms. Sadye Dunn, Secretary
U.S. Consumer Products Safety Commission
Washington, D.C. 20207

Dear Ms. Dunn:

It has come to our attention that your commission is considering extending the ban on lead based pigments to include the field of graphic arts coatings. We are manufacturers of bulletin colors and other coatings for the Outdoor Advertising and Commercial Sign Industry and would be seriously affected by such a ban.

It is our understanding that the purpose for elimating lead from paint is to elimate the possibility of ingestion by children such as had happened where coatings have flaked off of interior walls, toys, cribs, etc. Our materials are used for the execution of advertising messages on the display facing of painted bulletins which are built and maintained out of doors on commercially zoned high traffic locations where their advertising message will be read by the traveling public. There is physically no possible way in which paint used for this purpose could come in contact with children or in fact anyone other than the people actually painting or building these advertising displays. Furthermore, the materials are sold exclusively through sign supply dealers or directly by the manufacturer to the sign or advertising company so that they are not even available in normal retail channels.

I am enclosing a color card showing the standard bulletin colors which are used throughout the United States for painting all types of advertising displays and commercial signs. There are nineteen standard colors plus black and white of which # eight normally contain pigments which are derived from various chemical lead compounds. These pigments have been found to be the most economical and satisfactory for creating these specific colors and to ban their use would double the cost of manufacturing these colors from substitute materials. This seems to us a needless waste which serves no purpose.

Please bring these comments to the attention of the commission and urge them to continue the present exemption for graphic arts paints.

Yours very tral Charles H. Dana

arles H. Dana

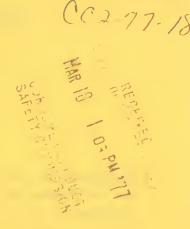
211

\* SEE COLOR CHED - SEND to hetherda



# **KOPPERS**

March 9, 1977



Secretary
Consumer Product Safety Commission
1111 - 18th Street, N. W.
Washington, D. C. 20207

Re: Federal Register Notice of February 16, 1977 inviting comments on the lead content of paints.

#### Gentlemen:

We support the continued exemption of "special-purpose" coatings where it can be shown that children will not be exposed to the potential hazards of a higher lead content in the paint film.

As manufacturers of industrial maintenance and marine coatings, we believe a denial of an exemption for these special-purpose coatings would result in desirable products that will not function in certain areas.

The damp and humid conditions associated with all marine applications, and the usual conditions of dew, fog and frost, associated with large outdoor projects such as water tanks, requires drier systems that will produce suitable results with alkyd resin systems.

Our research and development have not found any non-lead drier that will produce satisfactory results for the above applications. Without lead containing driers in marine applications the coatings will not dry, and in the industrial maintenance area we find considerable film damage and early failure resulting from dew, rain or frost many hours after application of the paint.

We have not tried to calculate the loss to our customers if they were required to use more expensive systems (vinyls, epoxy, etc.) or have a shorter service life for their paint systems. It is apparent, however, that it would be an unnecessary expense to prohibit the use of lead containing driers in coatings intended for these special uses.

March 9, 1977 Consumer Product Safety Commission 2.

Regulations concerning paint for household and furniture applications should be very specific and have a common-sense approach to actual surfaces accessible to and chewable by children. It is our opinion that lawn mower touch-up paint and metal office desks are examples where there is limited exposure to children. On the other hand, wood furniture for children's bedrooms should be of great concern.

Please call upon us if we can provide you with additional remarks or details with respect to these comments.

Respectfully submitted,

Charles P. Brush, Manager

Product Registration and Labeling

CPB/jb

cc: Robert A. Roland

National Paint Coatings Association

ARNE C. LINDHOLM
VICE PRESIDENT-CHEMICAL COATINGS

March 11, 1977

SAFETY C. PLESION

Secretary
Consumer Products Safety Commission
llll - 18th Street N.W.
Washington, D.C. 20207

Re: Proposed Regulation of Certain Lead Containing Paints and Other Similar Surface-Coating Material (16 CFR 1150)

#### Gentlemen:

We submit the following comment with respect to the regulatory proposals pending with the Consumer Product Safety Commission under the Federal Hazardous Substances Act, 16 CFR part 1150.

The paint industry realizes and understands the need for controlling the use of lead compounds in coating applications to eliminate the hazards of exposure of lead to humans, particularly children. The hazards to children have already been documented from past medical data. Measures have already been taken by the paint industry to eliminate lead compounds from all coatings which would be used in such areas and applications that would provide exposure and easy access to children. Initial reductions of lead levels have been from 1% lead in the dried film as originally called for in the Federal Hazardous Substances Act of 1960 to 0.5% under current regulations and many in the industry have already reduced the level to less than 0.06% in all of their consumer oriented products.

However, there are areas of coating applications where it is firmly believed that lead levels higher than 0.06% in the dried film would not be a hazard to persons or children living or working in the vicinity of such products. The need for such coatings containing lead is due to the technical and economic advantages that can be achieved and the fact the current technology has not provided answers for substitute materials to match the technical performance of certain lead compounds.

The Glidden Coatings & Resins Div. of SCM Corporation, a manufacturer of coatings in the consumer and industrial markets, concurs that a 0.06% lead level is a feasible range to obtain for consumer products (with a minor sacrifice in product performance in a few product lines). In fact, Glidden has been pursuing an active program to remove all lead compounds from consumer goods since 1971. That goal was achieved in 1973.

In the industrial maintenance and chemical coatings area efforts were also made to replace lead wherever feasible or possible. However, there are certain applications where product performance cannot be achieved without the lead materials, nor with substitute materials. In addition, in these particular areas it is believed that the presence of lead does not present a hazard. It is in the following industrial applications that Glidden (and the paint industry) has found that certain lead compounds are necessary in coatings to achieve the properties that are required to make a product for the consumer and industry which will meet performance standards that are required for the life of that product.

- 1. Automotive, agricultural implements, tractor, earth moving equipment, etc.
- 2. Industrial Maintenance Structural steel, chemical tanks and equipment, etc.
- 3. Coil Coating Industry Residential siding, mobile homes, metal finishes.
- 4. Appliance Coatings Washers, dryers, air conditioners, home appliances.
- 5. General Metal Finishing Steel partitions, registers, metal furniture, desks, filing cabinets, etc.
- 6. Marine Finishes -
- 7. Miscellaneous Mirror backing.

Coatings used in the above applications are applied at the factory where industrial know-how and modern safety practices eliminate exposure to hazardous materials. The films are baked at temperatures from 200-500°F. The coatings end up as extremely hard, smooth finishes with extreme adhesion and durability that resist cracking, chipping or peeling. The painted surface cannot be removed by gnawing or chewing or rubbing off to result in exposure to any hazardous ingredients such as lead.

Denying the permission to use certain lead compounds in the above product areas would result in making goods of inferior quality causing dissatisfaction to the consumer. Corrosion resistant properties would be lost leading to rusting and early failure of materials resulting in shorter life span of appliances and other products. Durability would be lost, again resulting in replacing or repairing current long-life products. All this at the replacement of a lead hazard which is not believed to be there in the first place.

It is therefore our considered opinion that the Commission should allow the above-referenced categories as exemptions to the proposed regulation on the grounds that the use of lead based paint in such categories does not destroy the primary purpose of the regulation. The hazard of toxicity caused by a child's ingestion is virtually non-existent. We respectfully submit that the Commission recognize such exemptions.

Very truly yours.

ACL:cam





DEPARTMENT OF PUBLIC HEALTH Room 540, Municipal Services Building Philadelphia, Po. 19107

CC 2-77-21

LEWIS D. POLK, M.D. Acting Health Commissioner

LAWRENCE J. DEVLIN
Deputy Health Commissioner

March 11, 1977

Secretary
Consumer Product Safety Commission
Washington, DC 20207

Dear Sir:

The Draft Environmental Impact Statement on Lead Content in Faint prepared by your Department and dated January 19, 1977 has been reviewed by the professional staff of the Philadelphia Department of Public Health and the following recommendations are being forwarded for your consideration:

- 1. The responsibility for regulating lead content in paint is presently the authority of the Consumer Product Safety Commission but under two different and separate federal Acts. We strongly recommend that the responsibility remain in the CPSC and that the Federal Hazardous Substances Act be amended to delete that section pertaining to lead based paints since lead based paint is appropriately defined and regulated under the Lead Based Paint Poisoning Prevention Act now a part of the National Health Information and Disease Prevention Act.
- 2. Regulations already developed by the CPSC indicate that paint containing more than 0.06% lead by weight are in violation of the federal Act. These regulations should be amended and include definitions of trade sales paint and industrial finishes.
- 3. Regulations should also provide clear cut definitions of what constitutes furniture and household appliances. This is especially important in the area of patio or outdoor furniture when made of metal construction. These articles may have baked on enamels or paints which contain large amounts of lead.
- 4. The CPSC should remove from the list of exempted paints presently in the Federal Hazardous Substandes Act the redwood and cedar primers. The reason is that these primers contain high concentrations of lead and may be used on exterior window sills and door frames, and thus present health hazards for children.

These recommendations are best represented in alternative #3 as proposed by the CPSC except for the recommendations asking for

specific definitions on furniture, appliances and exempt primers and paints.

I wish to thank you for the opportunity provided the Philadelphia Department of Public Health to respond to this matter and would appreciate being informed on final action contemplated by your agency.

Sincerely,

Lewis D. Polk, M.D.

LDP:WJS:es

cc: Mr. Sobolesky

77031114



P.O. BOX 2153, WICHITA, KANSAS 67201

Telephone: (316) 733-1361

Cc 2-77-21

March 15, 1977

Secretary Consumer Product Safety Commission 1111 - 18th Street, N. W. Washington, D. C. 20207

Sirs:

As a parent, grandparent, and a sincere Christian my tolerance for products injurious to children is zero. As a chemist and General Manager of a paint company my concerns are very great that legislation and administrative rulings by non-scientific groups or scientific groups operating out of their area of expertise will impose needless overkill on industry and ultimately we the citizens.

Recent changes in the definition of lead based paint were the result of political pressure applied to a problem without adequate data when such data are feasible. To minimize the costs of somebody's assumptions we strongly urge that all unchewable objects (metal furniture, appliances, etc.) be exempted from this regulation. Coatings for these uses must be abrasion and chip resistant to be marketed. Consumers will not tolerate a paint that mars or chips.

Costs for re-formulating and testing these coatings will be a constant and unnecessary expense which will eventually be passed on to the consumer and add to inflationary costs. Some of the pigments involved are ten times the price of conventional pigments and because of their lower hiding must be used in larger quantities. A lead free yellow appliance coating is four times as expensive as a product now in use. Our petition is for continued research to determine the need for the 0.06% level and exemption for obviously safe objects in residential paints.

Very truly yours,

Charles M. Downs

hales m. Downs General Manager



#77032129

# DUPLI-COLUR

DUPLI-COLOR PRODUCTS

DIVISION OF AMERICAN HOME PRODUCTS CORPORATION

1601 NICHOLAS BOULEVARD

ELK GROVE VILLAGE, ILLINOIS 60007

PHONE 312-439-0600

Certified Mail - Return Receipt Requested

March 15, 1977

Secretary Consumer Products Safety Commission 1111 18th Street, N. W. Washington, D. C. 20207

Re: Rule-making on Lead-in-Paint

Regulatory proposals-Fed. Register 41 F.R. 33636-40

16 C F.R. 1150.5

Exemption of certain "special purpose" coatings

Dear Sir:

As a leading manufacturer of touch-up coatings for automobiles, we have been and are very concerned about the necessity for such products to be exempted from regulations that would prevent the use of coatings that contain lead or heavy metals for such purposes.

Although industry sales figures are not available, based upon our own sales and our assessment of sales by others, we estimate that, in 1976, sales of automobile touch-up paints and the like totaled over 25 million units. This is evidence of a widespread demand for and need of such products by millions of vehicle owners.

If such touch-up products were not available to the vehicle owner and when refinishing is necessary to maintain the appearance of the vehicle and prevent rusting, his or her only alternative would be to utilize the services of a professional refinisher at a greatly higher cost. This would add tremendously to the already high cost of vehicle maintenance. Considering the fact that an automobile represents one of the largest investments most families ever make, it is essential to protect this investment and depriving them of relatively inexpensive touch-up products would impose a large and undue financial burden upon them.

To suit the tastes and preferences of the public and provide durable, long lasting finishes in an attractive range of colors, Secretary Consumer Products Safety Commission Washington, D. C.

vehicle manufacturers use coatings that contain lead. Many millions of vehicles in use today have such finishes and it is impossible to manufacture touch-up products to match these colors and finishes unless the same pigmentation is used as was used in the original vehicle finish.

As is well known, coatings applied to automobiles and the like by the vehicle manufacturers are of a special, durable and "hard" nature and not given to peeling or removal. It is completely unlikely that a child would be apt to, have the opportunity to or even be able to obtain, chew or ingest even a small fragment of such a coating.

Touch-up coatings to be applied to vehicles must also be of a special nature, adhere firmly to the vehicle's surface and be applied in relatively thin coatings. Again, it is inconceivable that a child would have access to or be able to obtain even a small fragment from a vehicle on which a touch-up coating has been applied.

It should also be noted that if touch-up coatings were not available and if the vehicle owner had repairs made by a professional refinisher, the refinisher would have to use coatings containing lead with the same result, as far as lead is concerned, as would have been obtained by using touch-up at a considerably lower cost to the vehicle owner.

It is also unlikely that anyone would be apt to purchase an automobile touch-up product for other uses in or about the home. The type of coating used and the colors available are not suited to such use and such products would cost the user far more than a great many products readily available and made for in-home use and more satisfactory for such uses.

It has been proposed and we agree that, regardless of the above, it is appropriate for all containers of touch-up coatings to carry appropriate "warning" statements as proposed by the Department Of Health, Education and Welfare, Food and Drug Administration (21 C F.R. Part 191.1) as reported in the Federal Register Vol. 37 No. 234 - Tuesday, December 5, 1972.

Banning the use of lead in touch-up coatings for automobiles and the like would impose an undue cost burden upon millions of vehicle owners, destroy an important industry that provides a great many March 15, 1977

Secretary Consumer Products Safety Commission Washington, D. C.

jobs and a livlihood for a great many people, and the risk to children is practically non-existant.

For all of the above valid and compelling reasons, we strongly urge that automobile touch-up paint and the like to exempted from regulations that would prevent the use of lead in such special and unique coatings.

We have a vital and important interest in this matter and will be glad to supply any additional information you may require an be of every possible service to you.

Very truly yours,

DUPLI-COLOR PRODUCTS Division

American Home Products Corporation

Wirt V. Dunlop

President

WVD: hh

Submitted in 5 copies.



THE VOLTAX COMPANY

INCORPORATED



MANUFACTURERS OF INDUSTRIAL

PAINTS — ENAMELS — LACQUERS — ADHESIVES

460 BOSTWICK AVENUE

BRIDGEPORT, CONN. 06605

Telephone (203) 333-2158 Cable: VOLTAX

March 17th, 1977

Consumer Product Safety Commission Washington, D. C. 20207

Attn: Sadye E. Dunn, Secretary

RE: The Lead Issue related to paints

Dear Ms. Dunn:

It is our opinion that proposed actions to eliminate lead compounds from all paints is an over-reaction to a political issue. The political chemists have based their demands on lead pigments used in paints prior to 1940 which were highly soluble and toxic. The enclosed testimony presented to the Senate by Nichem Corporation in 1972 demonstrates the differences between the types of pigments.

Our products are manufactured for use on a variety of metal surfaces in industrial applications for protective and decorative purposes. If the less soluble lead pigments used today are formulated in baking enamels and other industrial finishes, it is illogical to believe children suffering from pica would ever have an opportunity to eat these paints. The enclosed test data also explains the harmless nature of these pigments.

All we ask is a realistic approach to legislation and enforcement determined by truth rather than hysteria.

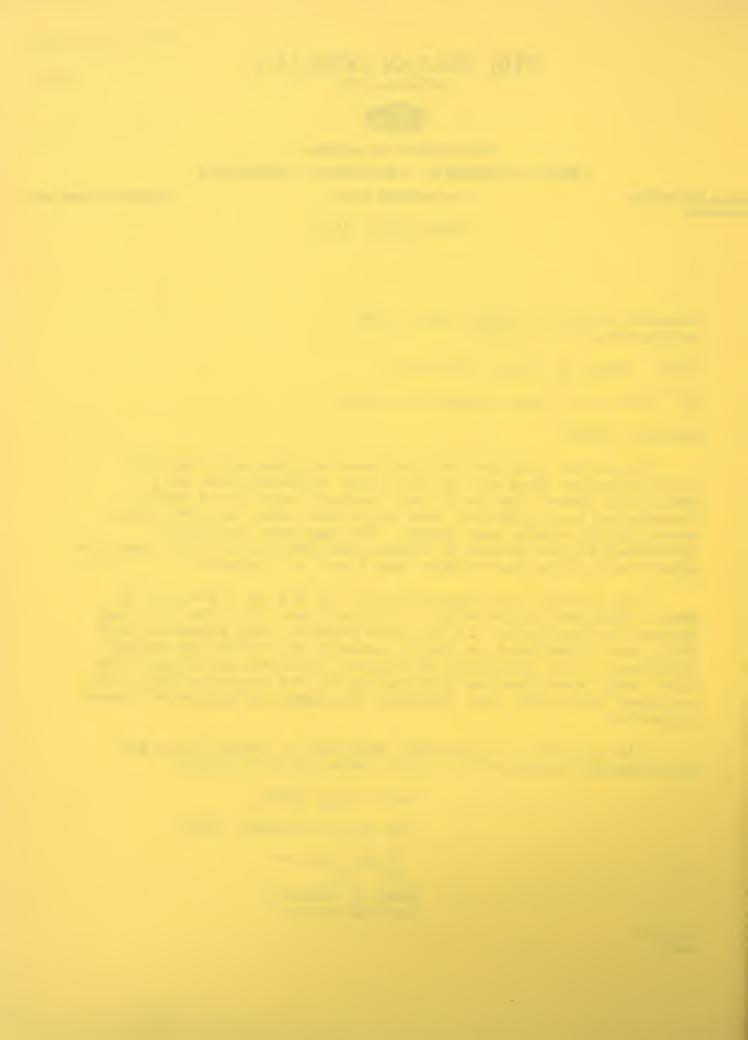
Very truly yours,

John J. Riccio

THE VOLTAX COMPANY, INC.

John J. Riccio Administrator

JJR:k enc.





Executive Offices: 600 West 52nd Street • Chicago, Illinois 60609

RECEIVED
MAR 8 1977

March 28, 1972

To: All Pigment Users

Subject: Lead Chromate

Because of the current furor over the use of lead containing pigments, we are enclosing the laboratory results that indicate the safety of our lead chromate yellow.

The oral LD<sub>50</sub> (lethal dose required to kill 50% of the test animals) as defined by the Occupational Safety and Health Act of 1970 is below 500 milligrams per thousand grams of body weight - 500 mg/kg.

The  $LD_{50}$  of our Medium Chrome Yellow is higher than 40,000 milligrams per thousand grams or 40 gr/kg.

I feel it is imperative that the industry act now to prevent being legislated out of business.

Certain benzanoid compounds are used as food preservatives, others are carcinogenous. Benzidine yellow is neither but it too will become the target of an FDA investigation.

Barium compounds though inert and used in ink pigments and X-ray analysis are already on the "hazardous" list of pending legislation.

Write your elected representatives now.

William G. Lerch



Executive Offices: 600 West 52nd Street • Chicago, Illinois 60600



March 17, 1972

United States Senate Committee on Labor and Public Welfare Washington, D. C. 20510

Re:#S 3080

Gentlemen:

This is a plea for sanity.

Let us not have another hexachlorophene, MSG (monosodium glutamate), or phosphate fiasco.

Let us be aware that there are many compounds that are harmless or beneficial in one form and toxic in another.

Cyanide as a gas HCN is a poison, yet cyanide in Prussian Blue is a non-toxic pigment. Soluble barium is toxic. But barium sulfate is used for x-ray analysis and is orally ingested. It is insoluble in this form. Paint makers use the insoluble barium sulfate.

So it is with lead compounds. The issue should be "What are the effects of specific lead compounds if ingested?", and not a blanket condemnation of all lead-containing pigments.

For example, lead acetate and lead carbonate are highly soluble under conditions of gastric digestion, and studies with laboratory animals indicate that they are highly toxic. Such compounds should, of course, be banned from general usage, and be used only under strictly controlled laboratory or manufacturing conditions.

On the other hand, lead sulfate and lead chromate are almost insoluble in gastric juice. Thus, even if paint chips containing these compounds are eaten by children with pica, the amount of lead being dissolved and absorbed into the system is negligible. The attached laboratory animal studies support this conclusion.





Executive Offices: 600 West 52nd Street • Chicago, Illinois 60609

March 17, 1972 United States Senate Re: #S 3080 Page 2

The above comparison is only one illustration of the radical variation that exists among lead compounds in their effect on living organisms. While some are potentially harmful, and should be stringently controlled, others are essentially innocuous. Their use is not dangerous to the human organism; their elimination for no proven reason is dangerous to the continuation of our national economy.

Anti-trust laws, federal loans, the Small Business Administration -- all are intended to foster free enterprise and encourage the entrepreneur. But who except the few mammoth corporations can survive the crushing blows of unnecessary, unwarranted and unsubstantiated legislation?

It appears that legislation is being based on public opinion rather than objective technical testimony. One result of such practices is public funds spent on subsequent reparation, as in the case of MSG.

Nor are such practices consistent with the best interests of the American public. If all lead compounds are about to be banned, though many are demonstrated to be harmless, why is tobacco being left on the market, though repeated research has shown it to be carcinogenous?

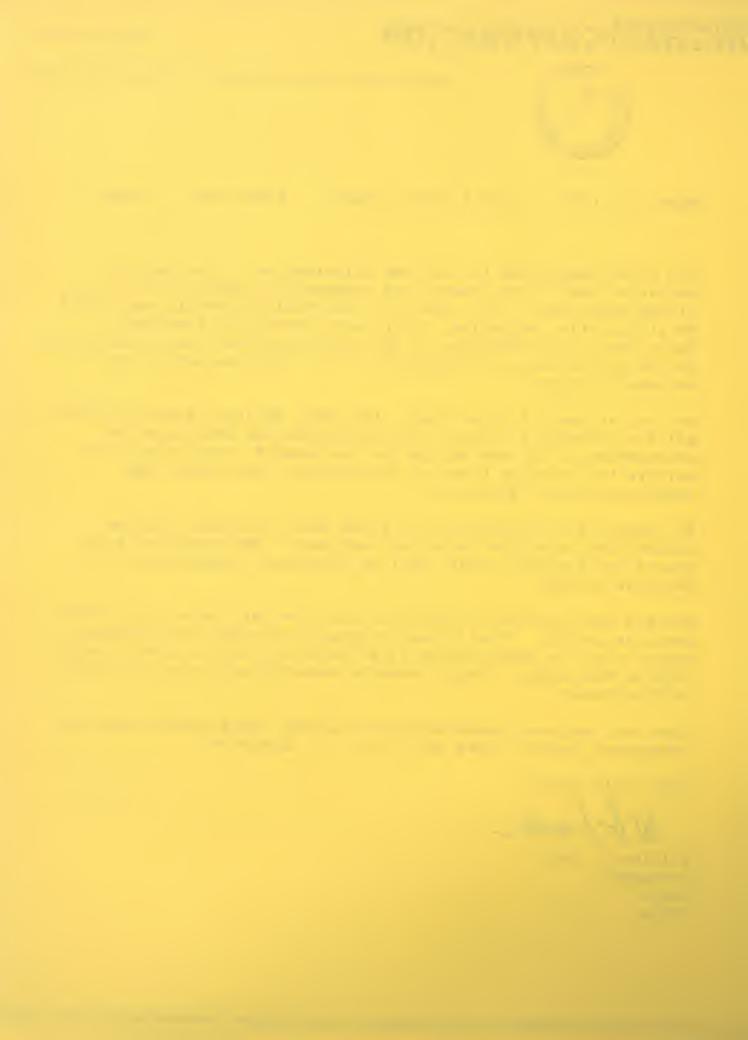
Your very serious consideration of all the above factors and the subsequent lawsuits that will result is warranted.

Very truly yours,

William G. Lerch

President

Encl. WGL: ab



## ROSNER-HIXSON LABORATORIES

7737 South Chicago Avenue/Chicago, Illinois 60619/Area Code 312 REgent 4-0142



REPORT

Laboratory No. 16085

CLIENT: National Industrial Chemical of Chicago, Illinois.

SAMPLE: Lead Chromate, Product No. 1610 JM LA Med Chr Yellow. The

lead content of the sample was stated to be 65%.

OBJECT: To determine the solubility of the test sample under conditions

of gastric digestion.

#### EXPERIMENTAL:

Five hundred milligrams of the test product was placed in a bottle to which was then added 100 ml of dilute hydrochloric acid, pH 1.5. The bottle was placed on a rotor in a 37°C room for a period of two hours. The suspension was then filtered. Each filtrate was thereupon tested for lead content by means of atomic absorption spectrophotometry.

### RESULTS:

1.	Total lead content of sample:	325 mgs
2.	Total lead dissolved:	5.19 mgs
3.	Soluble lead as percent of total lead:	1.59
4.	Soluble lead as percent of total sample:	1.04

## CONCLUSION:

The degree of solubility of lead in the test sample was found to be quite low. On the basis of this finding we conclude that the use of the test product as a component of paint would cause negligible hazards if the paint were to be eaten by children.

February 3, 1972

ROSNER-HIXSON LABORATORIES

Lawrence Rosner, Ph.D.

President

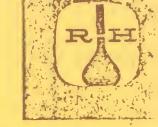
SS





# ROSNER-HIXSON LABORATORIES

7737 South Chicago Avenue/Chicago, Illinois 60619/Area Code 312 REgent 4-0142



REPORT

Laborate - 70. 12257

CLIENT: American Chemet Corporation of Chicago, Illinois.

OBJECT: To determine the relative solubility of various lead compounds under conditions of gastric digestion.

SAMPLES: The following samples were tested:

1. Lead acetate, J. T. Baker Reagent Pb(Ac) 2.3H20

2. Lead carbonate, M. C. B. Reagent PbCO<sub>3</sub>

3. Lead oxide, B&A Reagent PbO

4. Lead hydroxide, Pfalz & Bauer

5. Lead Sulfate, Fisher Certified PbSO,

6. Lead Sulfate, Basic (PbO.PBsO,), American Chemet

7. Leaded Zinc 102R, Lot 132, American Chemet

Samples 1-5 were obtained by us from laboratory supply companies. Samples 6 and 7 were submitted by the client.

#### EXPERIMENTAL:

Five hundred milligrams of each test product were placed in a bottle to which was then added 100 ml. of dilute hydrochloric acid, pH 1.5. The bottles were placed on a rotor in a 37°C room for a period of two hours. The suspensions were then filtered. Each filtrate was thereupon tested for lead content by means of atomic absorption spectrophotometry.

- continued -



#### COMMENT:

It is assumed that the toxicity of lead compounds for humans and animals is a function of solubility in gastric juice. That is, the lower the solubility the lower the toxicity. Thus if a lead compound is relatively insoluble in gastric juice then its ingestion should not produce the deleterious effects that occur with more soluble lead compounds, such as effects that result from the eating of paint by children.

While a search of the literature revealed a number of publications bearing upon solubility of lead compounds we could find none which compared solubilities under the usual conditions of gastric acidity and time or residence in the stomach. Thus the present study is designed to yield data from a practical simulated test under gastric conditions.

Under conditions of this experiment the lead acetate dissolved completely. All of the other products showed some residues after digestion, with varying degrees of lead solubility. The lead sulfate and leaded zinc showed the least degrees of lead solubility, whether related to total lead or total sample.

September 3, 1971

ROSNER-HIXSON LABORATORIES

Lawrence Rosner, Ph.D.

President

Lab. #12257

ad of ple							
Soluble Lead as Percent of Total Sample	54.1	25.0	9.04	9.07	3.7	37.6	8.0
Soluble Lead as Percent of Total Lead	666	32.2	43.8	47.2	5.5	47.8	12.0
Lead Content of Filtrate	0.270	0.125	0.203	0.203	0.019	0.188	0.004
Lead Content	54.5	77.6	92.8	86.0	68.3	78.8	6.63
	id acetate	Lead carbonate	Lead oxide	Lead hydroxide	Lead sulfate	Lead sulfate, basic	Leaded Zinc 102R
	1. Lead		3. Lea	4. Lea	5. Lea		7. Lea
		ci	ന	-1	iO	0	17



## ROSNER-HIXSON LABORATORIES

7737 South Chicago Avenue/Chicago, Illinois 60619/Area Code 312 REgent 4-0142



REPORT

Laboratory No. PT71-225

CLIENT: National Industrial Chemical Company of Chicago, Illinois.

SAMPLE: Lead Chromate, Product No. 1610 JM LA Med Chr Yellow.

OBJECT: To determine acute oral toxicity potential of sample.

### EXPERIMENTAL & RESULTS:

The sample was administered orally as a 25% suspension to overnight fasted rats of the Sprague-Dawley strain. The oral administration was performed by the use of a syringe with a modified 17 gauge hypodermic needle as an oral feeding tube. The animals were observed following dosing and over a subsequent fourteen day observation period. At the conclusion the survivors were weighed, sacrificed and subjected to a gross autopsy. Upon autopsy, thoracic and abdominal organs appeared normal. The doses and animal fates are shown in Table 1.

Based upon the data obtained, the acute oral LD  $_{50}$  of the sample is greater than 40 gm/kg.

#### SUMMARY & CONCLUSION:

The acute oral toxicity of Lead Chromate, Product No. 1610 JM LA Med Chr Yellow was determined.

The acute oral  $LD_{50}$  of sample for rats is greater than 40 gm/kg.

February 3, 1972

ROSNER-HIXSON LABORATORIES

O. F. Hixson

Technical Director



TABLE 1

# ACUTE ORAL TOXICITY

# SAMPLE: LEAD CHROMATE

# PRODUCT NO. 1610 JM LA Med Chr Yellow

Animal	Body Weight	Dose	Dose in	Weight Gain in 14 Days	
Number	in Grams	<u>Gm/Kg</u>	Ml. Solution	Grams	Fate
872	288	5.0	5.76	81	Survived
873	270	11	5.40	60	Survived
874	288	10.0	11.52 *	57	Survived
875	303	11	12.12 *	52	Survived
876	293	20.0	23.14 *	42	Survived
877	202	11	20.20 *	28	Survived
878	190	40.0	30.40 **	38	Survived
879	198	11	31.68 **	34	Survived
880	200	tt	32.00 **	50	Survived
881	198	ti	31.68 **	35	Survived
882	330	0	52.80 **	35	Survived

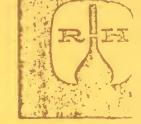
<sup>\*</sup> Administered in 2 divided doses on day of treatment

The acute oral  $LD_{50}$  is greater than 40 gm/kg.

<sup>\*\*</sup> Administered in 3 divided doses on day of treatment

# ROBNER HIXBON LABORATORIES

7737 South Chicago Avenue/Chicago, Illinois 60619/Area Code 312 REgent 4-0142



REPORT

Laboratory Na PT/1-7
Final Repor

CLIENT: American Chemet Corporation of Chicago, Illinois.

SAMFLES:

(a) 102 R Leaded Zinc, Lot #132

(b) Lead Acetate

(c) Lead-Oxide-Lead Sulfate Complex

(d) Lead Sulfate

(c) Lead Oxide

(f) Lead Carbonate

(g) Lead Hydronide

OBJECT: To determine the acute oral toxicity potential of the samples.

## EXPERIMENTAL & RESULTS:

Bach sample was administered to groups of overnight fasted male and female albino rats of the Sprague-Dawley strain. The oral administration was performed by the use of a syringe with a modified 17 cauge hypodermic needle as an oral feeding tube. The animals were observed following dosing and over a subsequent one month observation period.

The fate of the animals injected with the samples is shown in Tables 1-7. On the basis of these results, the acute oral LD<sub>50</sub> in rate for Lead Acetate is less than 20 gm/kg, while for the other samples it is greater than 36-40 gm/kg. Upon autopsy of animals which survived for one month, no abnormalities of thoracic or abdominal organs were observed.

## SURMARY & CONCLUSIONS:

Seven lead compounds were tested for acute oral toxicity.

On the basis of these above results, Lead Acetate has an LD of less than 20 gm/kg body weight. Leaded Zinc, Lead Oxide-Lead Sulfate Complex, Lead Sulfate, Lead Oxide, Lead Carbonate and Lead Hydroxide have an LD of greater than 36-40 gm/kg.

May 20, 1971

ROSNER-HIXSON LABORATORIES

O. F. Hixson

Technical Director



ACUTE RAT ORAL TOXICITY

SAMPLE: 102 R LEADED ZINC, LOT #132

Animal Number	Body Weight in Grams	Dose Gm/Kg	Dose in Grams	One Month Weight Gain Grams	Days to Death
115	216	1.0	0.216	42	Survived
116	169	1.42	0.239	35	Survived
117	180	2.0	0.36	53	Survived
118	194	2.84	0.55	56	Survived
119	180	4.03	0.725	42	Survived
120	192	5.68	1.09	24	Survived
121	187	8.06	1.51	43	Survived
128	188	11.4	2.14	37	Survived
129	214	16.2	3.47	36	Survived
130	196	23.0	4.51	44	Survived
131	198	28.7	5.68	36	Survived
132	184	35.9	6.61	67	Survived
215	202	40.0	8.08	139	Survived
216	211	40.0	8.4	137	Survived
217	198	40.0	8.0	114	Survived
218	206.	40.0	8.1	105	Survived

The acute rat oral  $LD_{50}$  is greater than 40 gm/kg.

TABLE 2

ACUTE RAT ORAL TOXICITY

SAMPLE: LEAD ACETATE

Animal Number	Body Weight in Grams	Dose Gm/Kg	Dose in Grams	One Month Weight Gain Grams	Days to Death
16	178	40.0	7.12		1
236	202	40.0	8.08		1
237	230	40.0	9.20		1
223	204	40.0	8.16	** ** **	1
238	214	20.0	4.28	00 PG G	1
239	222	20.0	4.44	day dis dis	1

The acute rat oral LD<sub>50</sub> was found to be less than 20 gm/kg.

ACUTE RAT ORAL TOXICITY

SAMPLE: LEAD OXIDE-LEAD SULFATE COMPLEX

Animal Number	Body Weight in Grams	Dose Gm/Kg	Dose in Grams	One Nonth Weight Gain Grams	Days to Death
122	188	1.0	0.188	65	Survived
123	176	1.42	0.249	36	Survived
124	190	2.0	0.38	46	Survived
125	177	2.84	0.50	51	Survived
126	174	4.03	0.70	37	Survived
127	192	5.68	1.09	56	Survived
133	202	8.06	1.63	55	Survived
134	170	11.4	1.94	52	Survived
135	214	16.2	3.47	42	Survived
136	200	23.0	4.60	38	Survived
137	196	28.7	5.62	59	Survived
219	220	40.0	8.8	120	Survived
220	219	40.0	8.8	109	Survived
221	158	40.0	6.4	102	Survived
222	187	40.0	7.6	67	Survived

The acute rat oral  $LD_{50}$  is greater than 40 gm/kg.

ACUTE RAT ORAL TOXICITY

SAUTE: LEAD SULFATE

Animal Emilia	Body Whight	Dose Gm/Kg	Dose in Grama	One Month Weight Gain Grams	Days to <u>Death</u>
97	165	1.0	0.165	75	Survived
93	150	1.42	0.226	80	Survived
97	151	2.0	0.322	54	Survived
100	150	2.84	0.426	64	Survived
101	245	4.03	0.629	61	Survived
102	160	5.68	0.909	80	Survived
103	£50	8.06	1.2	96	Survived
194	160	11.4	1.8	93	Survived
101	15%	16.2	2.49	95	Survived
106	150	23.0	3.45	90	Survived
107	150	28.7	4.3	91	Survived
108	246	35.9	5.24	89	Survived
223	222	40.0	8.88	130	Survived
229	223	40.0	8.56	134	Survived
230	193	40.0	7.92	143	Survived
231	21,5	40.0	8.64	171	Survived

The ecute rat oral LD<sub>50</sub> is greater than 40 gm/kg.

TABLE 5

ACUTE RAI ORAL TOXICITY

SAMPLE: LEAD OXIDE

Animal Number	Body Weight in Grams	Dose Gm/Kg	Dose in Grams	One Month Weight Gain Grams	Days to Death
29M	268	1.0	0.268	110	Survived
31M	292	1.42	0.415	139	Survived
46M	276	2.0	0.55	109	Survived
79 <b>F</b>	187	2.84	0.53	69	Survived
80F	212	4.0	0.85	69	Survived
96F	210	5.68	1.19	63	Survived
97 <b>F</b>	199	8.06	1.60	74	Survived
98F	203	11.4	2.31	34	Survived
99F	182	16.2	2.95	80	Survived
100F	168	23.0	3.86		7
1017	198	28.7	5.68	59	Survived
917	152	28.7	4.36	63	Survived
92F	156	35.9	5.60	44	Survived
102F	206	35.9	7.39	102	Survived
1343F	270	44.8	12.1 *	11	Survived
93F	158	44.8	7.08	57	Survived
1351F	236	56.0	13.2 *	31	Survived
1:367 <b>F</b>	260	70.0	18.2 *	9	Survived
94F	150	56.0	8.4 *	80	Survived
95F	162	70.0	11.3 *	52	Survived
96 <b>F</b>	166	99.4	16.5 *	74	Survived

<sup>\*</sup> Given in two divided doses, A.M. AND P.M.

The acute rat oral  $LD_{50}$  was found to be greater than 40 gm/kg.

ACUTE RAT ORAL TOXICITY

SAMPLE: LEAD CARBONATE

Animal Number	Body Weight in Grams	Dose Gm/Kg	Dose in Grame	One Month Weight Gain Grams	Days to Death
150	184	1.0	0.18	37	Survived
151	215	2.0	0.43	51	Survived
152	215	4.0	0.86	60	Survived
153	201	8.0	1.60	41	Survived
162	211	12.0	2.53	64	Survived
163	200 .	16.0	3.20	51	Survived
164	213	20.0	4.26	49	Survived
165	223	24.0	5.35	41	Survived
166	182	28.0	5.10	44	Survived
167	212	32.0	6.76	42	Survived
168	212	36.0	7.63	52	Survived
232	.204	40.0	8.16	152	Survived
233	214	40.0	8.56	132	Survived
234	182	40.0	7.28	119	Survived
235	206	40.0	8.24	126	Survived

The acute rat oral LD<sub>50</sub> is greater than 40 gm/kg.

TABLE 7

ACUTE RAT ORAL TOXICITY

SAMPLE: LEAD HYDROXIDE

				One Month	Days
Animal	Body Weight	Dose	Dose in	Weight Gain	to
Number	1.n Grams	Gm/Kg	Grams	Grams	Death
15	208	40.0	8.3	158	Survived
212	200	40.0	8.0	150	Survived
213	180	40.0	7.2	136	Survived
214	203	40.0	8.1	105	Survived

The acute rat oral LD<sub>50</sub> is greater than 40 gm/kg.

77032107

Van Sickle PAINT MANUFACTURING CO.

"Quality Paints since 1907"



305 M ST.
LINCOLN, NEBRASKA 68501
P. O. BOX 82222

March 15, 1977

Secretary
Consumer Product Safety Commission
1111-18th Street, N.W.
Washington, D.C. 20207

Dear Sir:

Van Sickle Paint Manufacturing Company produces a full line of trade sale paints for farm and home use. Our primary outlet is farm and home stores in smaller towns. Our customers associate our paint with high quality at a reasonable price.

In one of our paint lines, Tractor, Equipment and Industrial Enamel we use certain lead pigments. These lead pigments are <u>essential</u> to these various Equipment Enamels for both cost and quality reasons.

Cost - To replace lead yellow, orange or green would require drastically higher priced pigments costing 280% to 660% more per pound. A good yellow enamel that now costs \$1.69 per gallon for pigment would cost \$9.45 per gallon - just for pigment!!

Quality - Extensive tests on our test fence reveal much poorer exterior durability of non-lead pigments. Early failure by hazing and chalking resulted in bad gloss loss and color change. These results agree with those of pigment manufacturers!

Also extremely important is consideration of the surface to which these enamels will be applied. The chance of children being lead poisoned from chewing on tractors or farm equipment is almost nonexistent!

The economic impact to our company would be disastrous! First, 78% of all enamels we produce are Equipment Enamels. Second, even if we absorbed part of the necessary cost increase, the price would still rise substantially. Result - a much higher consumer price for a lower quality product and almost total loss of profit for us, the manufacturer. Finally, if current margins were maintained, the \$15.00 to \$20.00 selling price would be highly resisted by our customers. This resistance has been verbalized to us by farmers who regularly use Tractor, Equipment Enamel.

Therefore, I urge you as strongly as possible to exempt the "special purpose" coatings described above. These would be covered by former exemptions #1 - refinish and #4 - touch up coatings for agricultural and industrial equipment. In the public interest, the very, very slight hazard reduction that might possible result does not justify the extensive reformulation necessary, the drastically higher price and the substantially lower quality that would result!

Sincerely,

J. David McMahan Technical Director C. W. Moore Vice President #770322 PP DCC CC2-77-25

MAR 22 | 33 PM '77

SAFETY UNKINSION



March 21, 1977

Office of Secretary Consumer Product Safety Commission 1111 18th St. N.W. Washington, D. C. 20207

Attention: Sadie E. Dunn, Secretary

Re: 42 F.R. 9404 - February 16, 1977

#### Gentlemen:

NL Industries, Inc. makes the following comments with respect to the above-mentioned proposal. Since the proposed environmental impact statement raises the issue exemption of the following categories of special coatings, reference is also made to the proposed rule published in 41 F.R. 33636-40, August 10, 1976. That proposal did not specifically deal with the following seven classes of special coatings.

- 1. Automotive, agricultural and industrial equipment refinish coatings.
- Industrial (and commercial building)
   maintenance coatings, including
   traffic and safety marking coatings.
- 3. Graphic art coatings (products marketed solely for application on billboards, road signs, and similar uses and for identification marking in industrial buildings.
- 4. Touch-up coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicles, and appliances.
- 5. Exterior marine coatings for small craft application.

**Industrial Chemicals Division**/NL Industries, Inc. P.O. Box 700, Hightstown, N.J. 08520 Tel. (609) 448-3200

- 6. Exterior rubber-based roof coatings.
- 7. Exterior primer coatings for wood siding containing extractives (products marketed solely for application on redwood and cedar).

These seven classes of special coatings are used in both consumer and non-consumer applications. The predominant usage of most of these categories are by non-consumers, including commercial painters and governmental units. Non-consumer applications are not subject to regulation under the Consumer Protection Safety Act.

NL supports exemption of the above categories of special coatings from the regulations proposed in 41 F.R. 33636-40 for the reasons set forth below:

1. NL is not aware of any incident of harm or injury to consumers arising out of the use of the seven classes of special coatings. The recognized risk in the use of lead based paint is its ingestion by children. This has normally occurred in older housing where paint has flaked or scaled when improperly maintained. Because of the nature of usage of the seven classes of special coatings, and the unliklihood of their ingestion by children, application of current regulations to those classes was stayed.

Lead based interior house paint has not been manufactured for approximately thirty years.

- 2. Lead based paints in these seven classes offer economic advantages to the consumer. There are no cost effective substitutes for these applications. Furthermore all available higher priced substitutes are less effective in protecting surfaces from rust and corrosion and must be applied much more frequently. The higher cost of substitute coating materials, their general ineffectiveness and the greater frequency with which they must be applied will have a substantial and adverse impact on consumers.
- 3. There would be a loss of revenue by NL Industries with consequent cut backs in employment if the seven classes of special coatings are not exempted. The amount of lost revenue and number of lost jobs would be dependent on the scope and nature of regulation. However, as many as sixty employees could be adversely affected.

4. Any concerns which the Agency has regarding consumer use of lead based paints in the seven classes of special coatings can be adequately covered by labeling and consumer education without depriving the consumer of useful and inexpensive products.

Very truly yours,

C. W. Moore Vice President



#770322 19 RM

CC2-77-26



### State of New Jersey

### DEPARTMENT OF HEALTH

JOHN FITCH PLAZA
P.O. BOX 1540, TRENTON, N.J. 08625

March 18, 1977

Secretary
Consumer Product Safety
Commission
Washington, DC 20207

Dear Sir:

JOANNE E. FINLEY, M.D., M.P.H

COMMISSIONER

Thank you for providing a copy of the "Draft Environ-mental Impact Statement on Lead Content in Paint," for my review.

I feel that the statement was quite comprehensive in describing the problem regarding lead poisoning in children, and in offering several alternative courses of action to attack the problem. Personally, I would tend to favor the latter alternatives, since they:

- 1. Recognize that specific exemptions are necessary;
- 2. Minimize adverse effects; and
- 3. Present a justifiable overall basic trade off to both industry and the consumer.

I trust that the Consumer Product Safety Commission will follow the National Academy of Science's recommendation that a limit for lead content in paint be set and enforced at the time of manufacture.

In the time that I have had the document in my possession, I have found it to be an extremely useful resource tool. Again, I would like to extend my thanks and appreciation to you for giving me the opportunity to review and comment on the Environmental Impact Statement.

Sincerely yours,

amond D. Duffy, Jr., M.P.H

Coordinator

Accident Prevention and Poison Control Program

EDD:js:ddv/402



The Valspar Corporation



1101 Third Street South/Minneapolis, Minnesota 55415

CC 2-77-27

March 17, 1977

Secretary
Consumer Products Safety Commission
1111 - 18th St. N.W.
Washington, DC 20207

Dear Sir:

In answer to your invitation for comments on a draft environmental impact statement on lead in paint, we have the following comments to make.

First: We object to the setting of 0.06% lead on the non-volatile of the paint as being the maximum level of lead permitted in a non-lead based paint. We feel a maximum level of 0.2% lead on the non-volatile would give the Consumer Products Safety Commission the safety they demand and be easier for a paint manufacturer to meet. There are some low solids products (stains and sealers) in which lead-contamination present in some pigments could make the finish product unable to pass the 0.06% level of lead allowed after June 22, 1977, in a non-lead based paint.

Second: We feel that the Consumer Products Safety Commission should allow the exemptions for the seven classes of special purpose coatings requested by the National Paint and Coatings Association. These are coatings which in their application are not used on surfaces ordinarily exposed to young children. Also the replacement of lead base pigments in these coatings by lead free pigments will result in much higher cost paints with inferior properties for the consumer.

Sincerely,

J.B. Kenney

Technical Director

JBK/keh



7



March 21, 1977

Secretary
Consumer Product Safety Commission
1111--18th Street N.W.
Washington, D.C. 20207

Reference: Draft Environmental Impact Statement

Lead in Paint

1972 NPCA Petition--Special Purpose Coatings

#### Gentlemen:

In 1972 the National Paint and Coatings Association (NPCA) submitted to FDA a petition asking for exemption of several special purpose coatings. This has been taken over by the Consumer Product Safety Commission. The following information is presented in respone to an invitation by the Consumer Product Safety Commission on the draft environmental impact statement on lead in paint.

The Chemical Coatings Division of the Valspar Corporation is a major supplier of automotive, agricultural and industrial equipment refinish enamels. In addition, we also make touch-up coatings for the same type products. Our customers are the major producers of those products. Examples are Deere and Company, International Harvester Company, Allis Chalmers and many of the smaller specialized companies in the industry like Hesston, Farmhand and others.

We are estimating our sales to these companies for the current year to be on the order of 350,000 gallons. This is important business for our division. In turn, our customers use these products in production or resell in company owned stores. If 300,000 gallons are sold at an average cost of \$12 per gallon, the estimated sales would be \$3,600,000.

### HEALTH IMPACT

The products applied in our customers' plants are sprayed under well controlled conditions. The coating is done in well ventilated spray booths or spray areas. The workers wear respirators so are exposed to very little air-borne particulates.

Containers which are sold over the counter in farm implement stores are clearly labeled with a precautionary label similar to the one on page 2:

Secretary, Consumer Product Safety Commission Page 2 March 21, 1977

Use with adequate ventilation. Wash thoroughly after handling. Keep away from heat sparks and open flame. Avoid contact with skin and breathing of vapor or spray mist. Close container after each use. Do not apply to window sills, toys, furniture and interior surfaces of rooms that may be used by children.

KEEP OUT OF THE REACH OF CHILDREN.

### FOR INDUSTRIAL USE ONLY

This is a typical industrial cautionary label used on paint.

It is unlikely that the coating would be used where children will come in contact with the product. The substrate painted when refinishing equipment is steel or some other metal. Paint applied to this type of surface does not fail by peeling; and because of its hardness is not likely to be chewed.

### ECONOMIC IMPACT

The colors used by these companies are bright reds, oranges, yellows and greens. They have been used for many years and have become a symbol of corporate identity. There is a reluctance to make any color changes because of this. The pigments used to formulate these colors are chrome yellow, molybdate orange and chrome green. All of these pigments contain lead. They are used because of their bright color, high hiding, rheological properties and low cost.

What can be done to replace these pigments with lead-free products? There are no known pigments which compare with these which have the color, tinting strength, working properties, bleed resistance and cost. The organic type pigments are the ones first selected because of their color. These pigments, however, do not have the tinting strength, bleed resistance, working properties and hiding required. The cost can be from three to thirty times the price per pound. The amount of pigment used per gallon of paint is less, but the user will have to apply greater film thicknesses in order to cover the substrate.

Inorganic pigments are another alternative but most do not have the color intensity required.

The amounts of organic pigment substitutes are not sufficient to meet the demands of all users if lead chromate (chrome yellow), molybdate orange and chrome green were banned.

The consumer in many cases would have an inferior product. Color, gloss, durability and hiding would be some of the properties that would suffer.

Secretary, Consumer Product Safety Commission Page 3 March 21, 1977

There will be a considerable laboratory expense to the paint companies. Although the technology of converting to lead-free pigments is known, there will be a substantial amount of time involved in reformulating, testing and running exterior exposure of new products. Our customers in turn will run their own tests. The NPCA estimated it would cost \$1000 per sample. We think this is a conservative figure.

We believe the exemptions for special purpose coatings should be allowed by the Consumer Product Safety Commission for the following reasons:

- 1. The products being sold in the following two classes do not constitute an undue health hazard considering how they are used.
  - a. Automotive, agricultural and industrial refinish coatings.
  - b. Touch-up coatings for automobiles, agricultural and industrial equipment, boats, outboard motors, motorized recreational vehicles and appliances.
- 2. The economic impact on our customers and the final end user will be extremely costly. The end user for the majority of our paint is the farming industry which can not afford a major increase. The National Paint and Coatings Association in one report estimated costs would go up from 50 to 500%. On an average, selling price of \$12, the cost to a consumer would be \$18 to \$84. There is no way a consumer will pay this kind of money. He either will not paint or use an inferior product.
- 3. Paints produced with many of the substitute pigments will not be of equal quality to present materials. Gloss, hiding, and durability are three properties that will not be as good.
- 4. The coatings are not used on articles that children will be chewing. Consequently, there is a minimal hazard to children from paint chips and peeling paint.
- 5. If all manufacturers of these types of paints are forced to use organic pigments to replace lead pigments, there is not enough organic pigments to supply the demand. Our suppliers do not have enough organic pigment manufacturing facilities to supply the demand.
- 6. At the present time we know the risks involved in handling lead pigments. By proper warning labels and instructions we advise our customers of the hazards. If we adopt the use of organic pigments, we have no idea, nor does anyone else know, what are the toxicological effects on humans. We may be jumping out of the frying pan into the fire.

Secretary, Consumer Product Safety Commission Page 4 March 21, 1977

Thank you for considering our reasons for exempting special purpose coatings from the ban on lead regulations.

Very truly yours,

THE VALSPAR CORPORATION

gineric - holis

R. L. Fricker, Manager Technical Projects

RLF/jek

GRegory 3-1100 > 3-1101

CC2-77-28

27 - 29 ORCHARD STREET

MANUFACTURERS OF FINE PAINTS and VARNISHES





WALLINGTON NEW JERSEY

March 17, 1977

Sadye E. Dunn, Secretary Consumer Product Safety Comm. Washington, D.C. 20207

Dear Sir:

Please be advised that the 1972 NPCA petition to exempt seven (7) catagories of special purpose paint is absolutely necessary for the paint industry to continue to supply coatings that will perform properly. Not only will substitute coatings cost considerably more, but they will also fall far below present performance standards.

We feel the very slight, if any, benefits to the environment are far outweighed by the losses in properties of the coating, e.g., corrosion resistance, stain resistance, mar and abrasion resistance, etc..

Sincerely,

NORTH JERSEY PAINT CO., INC.

, helicard , place, ...

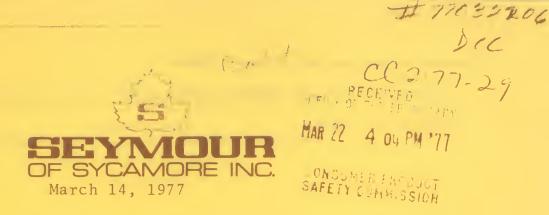
Bernard F. Malizia

President

BFM/lg

MAR 22 A 91 PM 77





Secretary Consumer Product Safety Commission 1111 18th Street NW Washington, D.C.

SUBJECT: LEAD IN PAINT/NPCA Exemption Request

### Gentlemen:

We are taking this opportunity to submit comments relative to your consideration of the Exemption Request by the National Paint & Coating Association for certain categories of paints, not subject to be chewed by children.

Seymour of Sycamore is a manufacturer of aerosol coatings which includes a number of coatings covered by the Exemption Request.

The lowering of the lead limit to 0.06% will have a significant impact on our industry even for those products that will have to comply with the new standard. This is due to the contamination of the coating from the lead solder used in the manufacture of most aerosol cans. To avoid this source of contamination, it will be necessary to use either welded side seam containers or high tin type. The welded cans are limited in supply and usually cannot be bought as competitively as the more popular lead soldered can. Also the tin soldered can is more costly.

Obviously, it would be of benefit to the industry to have the option to use the conventional lead soldered can on those products that are not subject to be chewed by children which is covered by the Exemption Request.

Furthermore, the use of lead pigments in certain products covered by the Exemption Request, will permit the manufacturer of a superior product at a significant reduced cost as compared to using a non-leaded pigment. The cost differential for the manufacturer can be as high as \$.15 per can or approximately

### Seymour of Sycamore, Inc., Sycamore, Illinois

Consumer Product Safety Commission Page 2 March 14, 1977

\$.60 at the retail level. Additionally, the leaded pigments have superior hiding qualities over the non-leaded type. For example: approximately 3 times as many coats are required for equivalent hide using a non-leaded pigment as compared to the leaded type. Perhaps another way of saying this, "it would require 3 cans using non-leaded type pigments to do what one can of the leaded type would achieve.

The consumer will be the ultimate loser in the event the Exemption Request is denied.

We strongly urge your support of the request.

Sincerely,

yesident

#77032267 Dec

# RANDOLPH PRODUCTS CO. (C2-77-30)

MANUFACTURERS OF
INDUSTRIAL LACQUERS, ENAMELS, SYNTHETIC PRODUCTS
CARLSTADT, NEW JERSEY 07072
(201) 438-3700

March 18, 1977

Consumer Products Safety Commission Washington, D.C. 20207 Attention: Sadye E. Dunn Secretary

Dear Sadye E. Dunn:

We regret to learn that the question of removing lead pigments from the seven industrial categories has come up again. Assuredly, the permission to use lead pigments on industrial equipment, airplanes, automobiles, and taxi cabs should be continued.

Nothing, absolutely nothing, will make it possible to match existing equipment and produce durable finishes for autos, garden equipment and so forth, without the use of lead chromate pigments.

We hope that industry can prevail in regard to this necessary procedure.

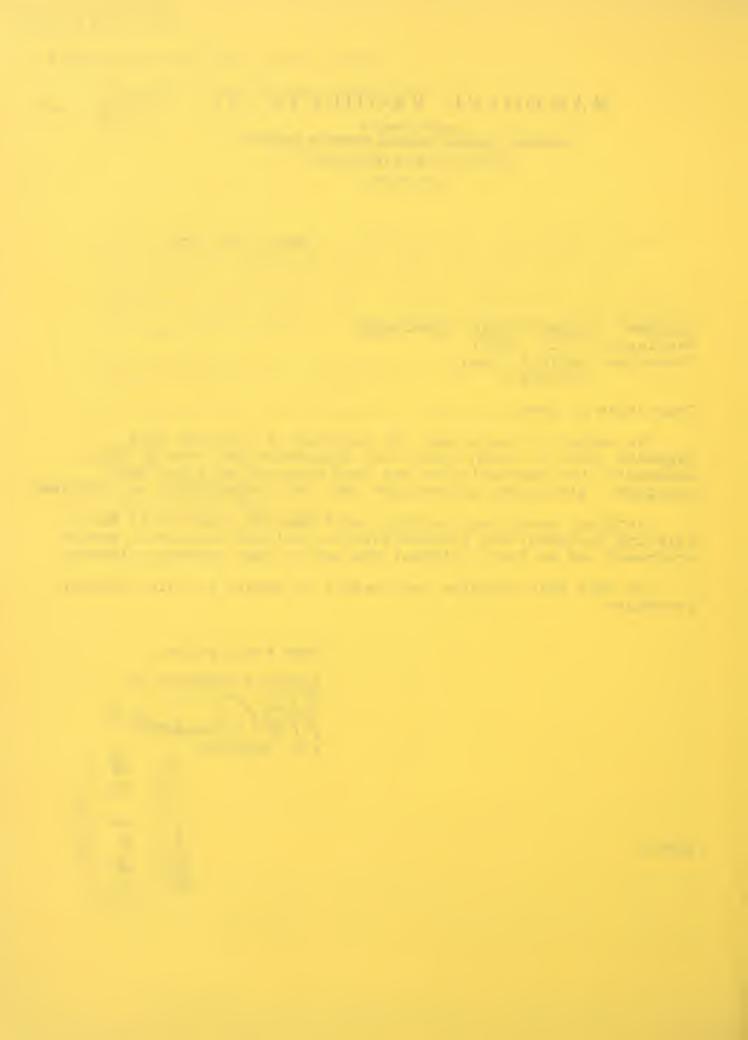
Very truly yours,

RANDOLPH PRODUCTS CO.

W.G. Randolph

R 22 4 OU PH 77

WGR:rc





#77032205

CC2-77-31

Mailing Address.
P. O Box 2078
Shawnee Mission

10000 MARSHALL DRIVE LENEXA, KANSAS 66215 • (913) 888-6710

R. D. Radford

President

March 18, 1977

Secretary
Consumer Product Safety Commission
Washington, D.C. 20207

Dear Sir:

Recent decisions by CPSC Lead Based Paint Poisoning Prevention Act are of considerable interest to my company. I understand, the recent change in <u>definition</u> of what will be considered lead-based paint after June 23, 1977, although am in disagreement with the decision. I would like for you to consider the seven "special-purpose" coatings that The National Paint and Coatings Association has petitioned for exemption thereof. They are:

- 1. Automotive, agricultural, and industrial equipment refinish coatings.
- 2. Industrial (commercial building) maintenance coatings, including traffic and safety marking coatings.
- 3. Graphic art coatings (products marketed solely for application on billboards, road signs, and similar uses, and for identification marking of industrial buildings).
- 4. Touchup coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicle, and appliances.
- 5. Exterior marine coatings for small craft application.
- 6. Exterior rubber-based roof coatings.

continued . . .

Consumer Product Safety Commission March 18, 1977 Page Two

7. Exterior wood primer coatings for wood siding containing extractive (products marketed solely for use on redwood or cedar).

Certainly all seven of these "special-purpose" coatings deserve to be in the exempt category, however, two have a special significance. The first is (2) traffic and safety marking coatings. Traffic paints are not accessible to children, therefore are not chewable. The available replacement organic yellow pigments that would replace lead chromate pigments in traffic paints are more expensive and considerably less durable. The result is: the customer must pay more, and receive less. A continuing problem in our over-regulated society in inflationary times.

Exterior wood primer coatings formulated for use on redwood and cedar (for bleed resistance) is an area where lead pigment contributes to quality without jeopardizing the health of our children. This is strictly for exterior use. For the last 3 years the coatings industry has been working on substitute additives for lead in exterior primers, and the consumer (again) is paying more, but receiving less. These substitute additives are expensive, considerable less effective for bleed resistance, and package stability is poor. In 1975, my company manufactured approximately 8,000 gallons of off-standard latex primer due to unstable conditions created by the lead substitute. The result was customer dissatisfaction and a tremendous unbudgeted expense for our company. As a member of the Kansas City Society for Coatings Technology and the Federation, we are aware of other manufacturers of coatings that are facing the same type of unnecessary expense.

We would also recommend a permanent exemption be extended to Touch-Up Paints for automobiles, industrial equipment, farm implements and metal buildings. These are sold in small quantities and must contain the same pigmentation as the original equipment coatings or poor color match will result.

continued . . .



Consumer Product Safety Commission March 18, 1977 Page Three

We doubt many children will be eating chips of paint from automobiles or tractors. If it is felt that there is that danger then the finishes for OEM should be lead-free also.

We understand a new regulation banning lead in articles of furniture has been proposed. Most metal furniture and appliances around the house, whether they contain lead or not, are hard Baking Enamels which would be impossible for a child to chew off significant amounts of chips. For this reason we feel an exemption should be made for metal furniture coated with hard enamels. The use of lead-free decorator colors would more than double the cost of a typical yellow or green baking enamel.

As a father, I would not worry about the safety of my children because of the lead content of any of the above "special-purpose" coatings. If we examine the purpose of the law which was to protect unsuspecting children from lead poisoning, I'm sure The Commission will agree with these conclusions and grant exemptions for the seven special finishes and metal furniture. Thus, the consumer will not be paying excessive costs for unnecessary lead protection.

Very truly yours,

R. D. Radford

President

RDR/j1



R.O. INNES

O. G. INNES CORPORATION

CC2 77-36 INNESCO

di Jan Bar Bar B

Natural and Processed Resins 10 BAST 40th STREET

NEW YORK, N. Y. 10016

March 18, 1977

Ms. Sadye E. Dunn, Secretary Consumer Product Safety Commission Washington, D. C. 20207

Dear Ms. Dunn:

As suppliers of resin to the Paint and Coatings Industry we are very much concerned about action that might be taken in conjunction with banning certain products in formulations where adverse affects on the industry would be unnecessarily brought about without further careful study.

All of us are concerned about the fact that paint, for example, would be a hazard where the pigments might be lead but on the other hand the infinitesimal amounts of lead that are used as driers become a very important part of the formulating controls to place products on the market that dry quickly and are efficient and easy to use, a great benefit to the consumer. Further study is needed before broad action may be taken to ban the use of small amounts of lead in areas where hazards are minimal.

Rather than have any broad classification made, it is felt that careful consideration of the individual outlets and uses be given before bringing to a head action that might at a later date be proved unwarranted and a hardship on the industry as well as those who use its products.

While our resins are completely safe in themselves, they are used with other materials in composing current superior coatings. We can only express our thoughts with regard to such components with the thought that any action to be taken will be done on a most careful and considered basis.

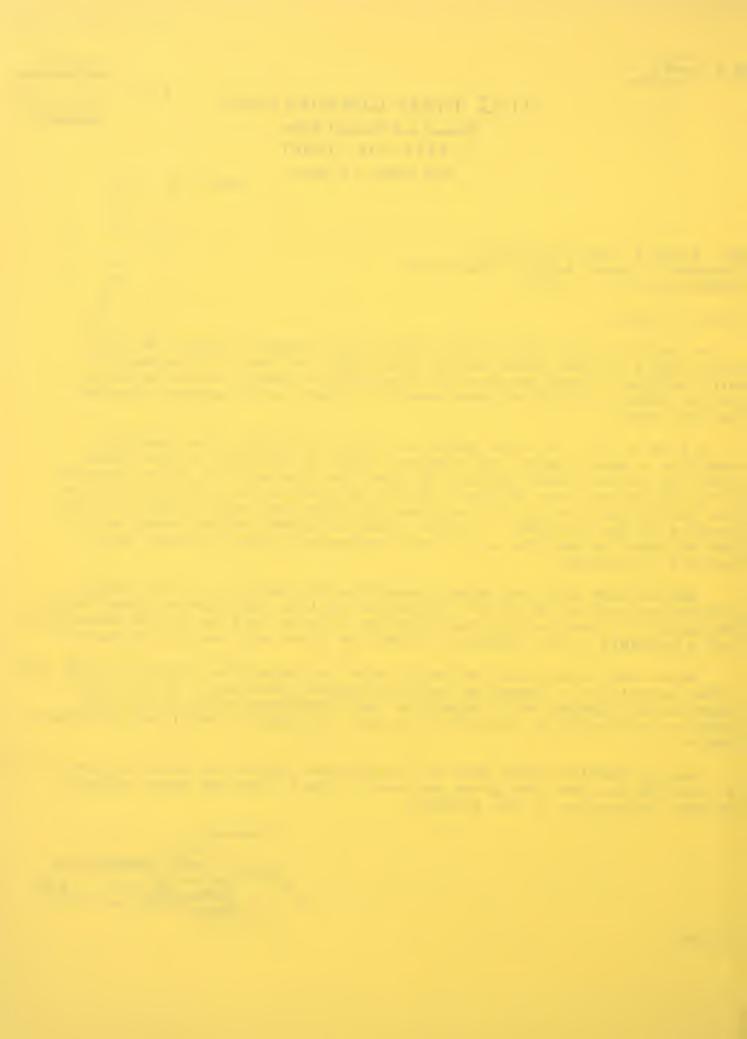
We are familiar with work by the National Paint and Coatings Association as well as the New York group and would like to back up their efforts by this expression of our thoughts.

Sincerely,

O. G. INNES GORPORATION

President

ROI:mb



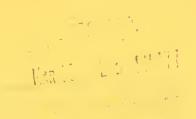




## E. I. DU PONT DE NEMOURS & COMPANY

WILMINGTON, DELAWARE 19898

FABRICS & FINISHES DEPARTMENT



March 22, 1977 31 11

Secretary
Consumer Product Safety Commission
111 18th Street, N.W.
Washington, D.C. 20207

DRAFT ENVIRONMENTAL IMPACT
STATEMENT ON LEAD CONTENT IN
PAINT - EXEMPTIONS FOR SPECIAL
PURPOSE COATINGS

RE: 42 F.R. 32 - February 16, 1977 (pp. 9404-9406)

E. I. du Pont de Nemours and Company, a Delaware corporation, with headquarters at 1007 Market Street, Wilmington, Delaware 19898, is a major supplier of industrial, commercial, and consumer coatings through its Fabrics and Finishes Department. We have long had an interest in the removal of any lead-based paint hazards to children. This letter underscores our ongoing advocacy of that objective. We also support the pending petition of the National Paint and Coatings Association (NPCA) for continued exemptions for special-purpose coatings. These special-purpose coatings are discussed in the above-cited Draft Environmental Impact Statement.

### SUMMARY

The Draft Environmental Impact Statement sets forth five regulatory alternatives of which one may be promulgated by the Commission in the anticipated April 1, 1977, final regulation. Our comments upon these alternatives may be summarized as follows:

Alternative No. 1: (Continued regulation will be under the Federal Hazardous Substances Act (FHSA). The acceptable lead level would remain at 0.5% on dried paint film solids. Exemptions, such as NPCA has requested, may be allowed at some future time.) This is a "status quo" option and is not acceptable because it will perpetuate inconsistencies between regulations issued under the Lead Based Paint Poisoning Prevention Act (LBPPPA) and those issued under the Federal Hazardous Substances Act (FHSA). In

addition, the issues raised in NPCA's 1972 petition regarding special-purpose coatings would remain unresolved.

Alternative No. 2: (All regulation will be under the CPSA which will supersede FHSA. The present FHSA limit of 0.5% will be lowered to 0.06%. All types of trade sales paints will be covered and exemptions for special-purpose coatings will be denied.) Du Pont is unalterably opposed to this option because it extends, or attempts to extend, the lead ban to automotive refinishes, agricultural and industrial equipment coatings, and appliance coatings.

Alternative No. 3: (All regulation will be under the CPSA. The limit will be lowered to 0.06%. Special-purpose coatings will be specifically exempted. Certain articles of household goods might also be exempted as well.) This option cannot be assessed with confidence because it is described differently in different sections of the Draft Environmental Impact Statement. In Section II, page A-9, as well as in Table 5, it is stated that metal furniture, metal window dressings, and household appliances are articles which are intended to be exempted from regulation. In Section III, page 17, it is specifically stated that only the seven special-purpose coatings covered by the NPCA petition are to be exempt from the lead ban. Tentatively, however, this alternative may be acceptable.

Alternative Nos. 4 and 5: (No. 4 is identical to No. 3 except that the effective date will be June 23, 1978, instead of June 23, 1977. No. 5 is identical to No. 3 except that the 0.06% level would be achieved in two stages, 0.25% by June 23, 1977, then to 0.06% by June 23, 1979.) These options are described in terms of Alternative No. 3. Thus, just as in Alternative No. 3, the extent of coverage and/or exemption in the remaining options is unclear. They too, however, may be acceptable.

In summary, it is our opinion that the petition of the National Paint and Coatings Association should be adopted; that appliance coatings should not be subject to the proposed ban; and that Alternative Nos. 1 and 2 of the Draft Environmental Impact Statement, continuing the status quo or denying all exemptions, should not be adopted.

### DISCUSSION

The classes of coatings for which the exemptions are being sought are comprised of products whose use and application do not present any lead-based paint hazards to children, and

which have long-established utility.

Discussion of the health, environmental and economic impact associated with special-purpose coatings appears in Section III of the Draft Environmental Impact Statement under Alternative No. 2. We are concerned that the discussions which appear under the subheadings, "Environmental Factors", "Economic Factors", and "Scope of Coverage", are not in sufficient depth to really explain the application and function of the special-purpose coatings for which exemptions have been sought. Also, the unsuitability of substitute materials in the event Alternative No. 2 is chosen is not explored, and downstream economic effects have not been considered.

We have marshalled our comments below according to the applicable class numeration for special-purpose coating exemptions.

Class 1. Automotive Agricultural, and Industrial Equipment Refinish Coatings

The statement is made on page III-15 of the Draft Environmental Impact Statement that, "The total economic effects of denying the exemptions cannot be accurately assessed". While we agree that a total assessment is difficult, we suggest that segments of the economic effect can and should be estimated.

In the case of Refinish Coatings, the Draft Statement recognizes that the absence of lead pigments will present color matching problems and that exact matches will not be possible in certain yellow and orange ranges. The Draft Statement does not recognize that other color ranges are also involved. For these, the cost of redevelopment on a lead-free basis will be substantial. While the general principles involved in such work are well known, the actual work requires a large amount of careful effort and we estimate redevelopment costs to range from \$300 to \$1,100 per color. Considering that the Du Pont Company alone produces approximately 5,000 formulas containing lead pigments, it is easy to see that these development costs will be significant.

Another area of economic impact results from the increased cost of replacement pigments. The pigments available for use in automotive finishes are limited because of stringent requirements for light fastness and film durability. Non-lead replacement candidates are between 15 and 30 times as expensive as lead pigments (on a pound of pigment basis).

For many colors, the formulator will be able to blend the expensive replacement candidates with lower cost pigments and produce a final formula that is less expensive than the 15 and 30 times figure might suggest. But it must be emphasized that the cost of raw materials to make most formulas will increase 50 to 500 percent. Further, many of these formulas (the more intense reds, yellows and oranges) will have poor hiding power which means that the user must apply more paint. We estimate that the average cost will at least double for those colors where lead pigments are replaced.

For the agricultural and industrial equipment market, special characteristics of automobile finishes are not required, permitting reformulation with pigments ranging in price from \$4 to \$20 per pound with the average price in the \$7 to \$9 per pound range. These pigments have the same hiding power limitations mentioned above and the expected need for more paint will raise coverage costs 50 to 500 percent.

A third field of economic impact arises from the fact that a car owner will be unable to have his car spot repainted when it is damaged. The alternative will be an all-over paint job. We estimate that about 25 percent of automotive refinish color matches would be affected and the increased paint demand will be six times the amount needed for spot repaint. A corollary effect will be the release into the atmosphere of six times the amount of solvent currently released in spot repainting operations. This constitutes a significant adverse environmental impact. We are unable to estimate the economic impact upon farm and construction implements but expect it to be somewhat less.

A fourth source of impact will be the consequence of an anticipated lowering in durability and corrosion protection. Lead pigments add substantially to these characteristics. A reduction of 10 to 20 percent in the useful life of a coating is expected if lead pigments are forbidden.

These economic impacts are not only adverse but also unreasonable as well, since they are not counter-balanced by a beneficial environmental health impact. The paint on the family car is, perhaps, physically accessible to children, but the film characteristics and those of the metal substrate to which it is applied make it almost impossible to remove the coating by chewing or peeling. Under these conditions, ingestion by children becomes a virtual impossibility. Consequently, we do not believe that a health hazard to children from any of these refinish coatings is or can be supported by evidence of past ingestions or the possibility of future harm. Similarly, CPSC doesn't claim to have reports of any children suffering from lead poisoning because of chewing on tractors or air compressors, for example.

The adverse safety impact of radical reformulation or possible elimination of bright color finishes should not be overlooked. The familiar "Caterpillar Yellow" is more than simply a tradition. Vehicles and equipment coated with this particular color, orange, or bright green, can be seen and avoided at greater distances on high-speed roads.

The economic penalties flowing from a lead ban for this class of products (automotive refinishes and agricultural and industrial equipment), together with the adverse safety impact the resulting color elimination would produce, cannot be justified.

## Class 2. Industrial and Commercial Building Maintenance Coatings

This class includes products such as lead-containing structural steel primers which inhibit corrosion, a function which in certain applications cannot be comprised without also jeopardizing the structural integrity of factories, plants, office buildings and bridges.

In the Alternative No. 2 discussion, Industrial Maintenance coatings are disposed of with a single statement on page III-16, "... (no impact): industrial maintenance coatings do not constitute a consumer product of any consequence". While we agree that the coatings do not constitute a consumer product of consequence, we emphatically disagree with the initial conclusion that there will be no impact. Adoption of Alternative No. 2 will effectively ban such lead-containing coatings thus eliminating their beneficial effects. A greater impact could not be found. Industrial plant sites in every part of the United States rely upon maintenance painting in one form or another to lengthen the useful life of buildings and equipment. Maintenance painting, then, helps to hold down the cost of innumerable consumer products, and the value of such painting is based, in part, upon the longevity and anti-corrosive properties of maintenance coatings as presently constituted. Far from being a nullity, the impact here is so large as to be incalculable.

The Du Pont Company is not a major factor in the marketing of the remaining classes of products included in the NPCA petition. However, we endorse the discussion of their characteristics in the petition and consider it germane to any exemption decisions.

Alternative Nos. 3, 4 and 5 mention the possibility of exempting appliance finishes. Factory applied coatings for appliances were not included in the NPCA's 1972 petition for

special exemptions because industrial coatings supplied in bulk packagings were considered outside the scope of the FHSA. However, the Commission's apparent intent under Alternative No.2 to apply a lead limit to "articles of furniture containing leadbased paint" and the interpretation that the term "articles of furniture" includes appliances, has the effect of banning lead from such coatings.

In our opinion, such a ban applied to organic and porcelain coatings for appliances cannot be justified any more than extending the ban to original finish coatings for automobiles can be justified. Both types of coatings are applied to articles which may meet the definitions of a consumer product, but the presence in or around a household of a coating containing lead compounds cannot be equated with the availability of those compounds to children by chewing. The Draft Environmental Impact Statement recognizes this distinction in the Section I-A comment, "It is difficult, however, for a child to chew a chip of this paint without seriously cutting his mouth". Considering the limited physical abilities of young children likely to exhibit pica, the comment is grossly understated.

We submit that appliance coatings are not subject to peeling nor to removal by chewing. The coatings, therefore, do not present an ingestion hazard. Since appliance coatings do not meet the FHSA test (may cause substantial personal illness as a result of reasonably forseeable ingestion by children), or the CPSA test (presents an unreasonable risk of injury), it is inappropriate to impose ingestion-related restrictions on their composition.

Your consideration of these comments in support of National Paint and Coatings Association's petition regarding exemptions for special-purpose coatings, in support of an exemption for appliance coatings, and against the adoption of Alternative Nos. 1 and 2 of the Draft Environmental Impact Statement, is appreciated.

Very truly yours,

S. Harrison

Director

Finishes Division

CC2-77-34

outdoor power equipment institute inc.

BELLIAE - VIA

MAR 23 | 11 PM '77

SAFETY SUM I SHOW

suite 903-905 1725 k street,n.w. washington,d.c. 20006 (202) 296-3484

March 22, 1977

Ms. Sadye E. Dunn Secretary Consumer Product Safety Commission Washington, D.C. 20207

Dear Ms. Dunn:

Re: Request for Comments on "Draft Environmental Impact Statement on Lead Content in Paint" Dated January 19, 1977

On behalf of the Outdoor Power Equipment Institute (OPEI), enclosed for filing with the Commission are an original and five copies of comments on the above-referenced proposed impact statement. OPEI is the national trade association representing 53 manufacturers of lawn and garden-care equipment.

The legislative and regulatory history of the proposed regulation by the Consumer Product Safety Commission (CPSC) are set forth in the "Draft Environmental Impact Statement on Lead Content in Paint" (Impact Statement), dated January 19, 1977, and the Federal Register notice of Wednesday, February 16, 1977, and will not be set forth by OPEI except to note that in 1972, the National Paint and Coatings Association (NPCA), a trade association representing surface coatings manufacturing industries, petitioned the Food and Drug Administration (FDA) to amend 21 CFR 191.9(a)(6) [now 16 CFR 1500 17(a)(6)] to exempt certain special use paint coatings including, among others:

4. Touch-up coatings for automobiles, agricultural and industrial equipment, <u>lawn and garden equipment</u>, boats, outboard motors, motorized recreational vehicles, and appliances. (Emphasis added.)

NPCA's petition was granted, and these exemptions have continued in effect until the present time. OPEI's comments are limited to lawn and garden equipment in exemption four, as set forth above.

### outdoor power equipment institute inc.

Ms. Sadye E. Dunn March 22, 1977 Page 2

The Impact Statement indicates that of the five regulatory alternatives being considered by CPSC, the <u>special use</u> exemptions will be continued with the exception of alternative 2, in which the exemptions would be denied. Under alternative 2, the Impact Statement speculated that the denial of exemption four would have a "slight beneficial help effect" even though it would have a major adverse impact. In addition, the Impact Statement indicated that the total economic effects of denying exemption four could not be accurately assessed.

OPEI is concerned about the denial of an exemption under circumstances where the exemption is consistent with the purpose of the regulation, and in addition, denial may affect product safety and utility. Special use paint coatings identified in exemption four are almost invariably used under circumstances in which children would not be exposed to the paint coatings. Furthermore, it is probable that lawn and garden-care equipment products, exposed to a wide range of weather and environmental conditions, would more easily be corroded and damaged unless the weather surfaces were covered with an adequate paint coating. Product safety and product utility of lawn and garden equipment might be impaired.

Accordingly, OPEI urges the Commission to preserve exemption four relating to special use paint coatings used to touch up lawn and garden-care products.

Very truly yours,

Donald E. Purcell

Director of Government Relations

mad F. Pmw

and Counsel

DEP/mm

### WILMER, CUTLER & PICKERING

1666 K STREET, N.W.

WASHINGTON, D. C. 20006

CABLE ADDRESS: WICRING WASH, D. C.
INTERNATIONAL TELEX! 440-239
TELEX: 89-2402
TELEPHONE 202 872-6000

EUROPEAN OFFICE

S, CHEAPSIDE
LONDON, EC2V 6AA, ENGLAND
TELEPHONE 01-236-2401
TELEX. 851 883242
CABLE ADDRESS: WICRING LONDON

March 23, 1977

STEWART A. BLOCK
LACKLAND H. BLOOM, JR
LYNN BREGMAN
MICHAEL L. BURACK
RICHARD G. BURT
RICHARD W. CASS
WILHELMINA REUBEN COOKE
MICHELE B. CORASH
MARY CAROLYN COX
PATRICIA D. DOUGLASS
S. ALLEN EARLY, III
JAMES R. FARRAND
NANCY C. GARRISON
NEAL M. GOLDBERG
CORNELIDS J. GOLDEN, JR.
FRANCES M. GREEN
ROBERT C. HACKER
EDWARD T. HAND
ALLEN H. HARRISON, JR.
JOHN H. HARRISON, JR.
JOHN H. HARRISON, JR.
JOHN H. HARRISON, JR.
JOHN SON
MICHAEL S. HELFER
A. STEPHEN HUT, JR.
DAVID R. JOHNSON
JAMES T. KILBRETH, III
NEIL J. KING
WILLIAM J. KOLASKY, JR.
CANDACE S. KOVACIC

DONALD C. LANGEVOORT
ELWYN C. LEE
RICHARD A. LOWE
BRUCE E. MAXIMOV
ROBERT B. MECAW
MARY A. MCREYNOLDS
A. DOUGLAS MELAMED
LOWELL B. MILLER
ROBERT R. MORRIS
WILLIAM J. PERLSTEIN
PHILLIP L. RADOFF
RENÉ TOWNSEND ROBINSON
JOHN ROUNSAVILLE, JR.
MICHAEL S. SCHOOLER
GAIL F. SCHOLZ
KAREN KOSER SCHWARTZ
THEODORE S. SIMS
ARTHUR B. SPITZER
ALAN B. STERNSTEIN
DOUGLAS G. THOMPSON, JR.
JAY P. URWITZ
ERICA A. WARD
CAROL DRESCHER WEISMAN
ANDREW B. WEISSMAN
ALAN S. WEITZ
ROBERT G. WILSON
ROBER M. WITTEN

EZEKIEL G. STODDARD GERARD C SMITH ARTHUR Z. GARDINER, JR COUNSEL

JOHN H. PICKERING

J. ROGER WOLLENBERG

MARSHALL HORNBLOWER

REUBEN CLARK SAMUEL J. LANAHAN WILLIAM R. PERLIK ARTHUR F. MATHEWS JAMES S CAMPBELL DENNIS M FLANNERY DANIEL MARCUS

JAMES ROBERTSON

RAYMOND C. CLEVENGER, III

MICHAEL R. KLEIN
STEPHEN A. WEISWASSER
TIMOTHY N. BLACK
SALLY KATZEN
F, DAVIO LAKE, JR.
PAUL J. MODE, JR
STEPHEN F, BLACK
C BOYDEN GRAY

DEANNE C. SIEMER GARY D. WILSON C. LORING JETTON, JR WILLIAM T. LAKE

Ms. Sadye E. Dunn
Secretary
U.S. Consumer Product Safety
Commission
Washington, D.C. 20207

Re: Draft Environmental Impact Statement on Lead Content in Paint.

Dear Ms. Dunn:

On behalf of Consumers Paint Factory, Inc., enclosed for filing with the Commission are an original and five copies of comments on the above-referenced Draft Environmental Impact Statement.

Please communicate to the undersigned any questions or comments concerning this matter.

Very truly yours,

Richard A. Lowe

Enclosures



CC2-77-35"

RECEIVED

AND 23 3 57 PM '77

# Before The Consumer Product Safety Commission (1) 21 6 3510N

RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT ON LEAD CONTENT IN PAINT.

COMMENTS OF CONSUMERS PAINT FACTORY, INC.

On January 24, 1977, the Consumer Product Safety Commission ("CPSC"), in connection with proposed rulemaking on regulation of lead-containing paints and other coatings under the Consumer Product Safety Act ("CPSA"), released a draft Environmental Impact Statement ("Draft EIS") in which various alternative regulatory actions were discussed. One of the alternatives discussed involved, inter alia, the denial of the pending proposed exemption for graphic arts coatings—lettering enamels and bulletin and poster colors. Consumers Paint Factory, Inc. ("Consumers Paint") submits these Comments on the Draft EIS in order to correct a major factual error contained in the discussion of the impact of a denial of the exemption.

<sup>\*/</sup> In comments filed on February 2, 1977, Consumers Paint set forth its views as to why the proposed exemption for graphic arts coatings should be adopted.

The Draft EIS considers five alternative courses of regulatory action with respect to paints and coatings containing lead. The second alternative provides for the regulation of these products under the CPSA and the denial of all the currently proposed exemptions including that for graphic arts coatings. The Draft EIS acknowledges that the total economic effects of denying the exemptions cannot be accurately assessed. However, in referring to graphic arts coatings, the Draft EIS states that the denial of the proposed exemption would have "no impact."

This statement can only be based on erroneous assumptions or information. As we show below, the denial of the exemption would have a major adverse economic effect on both manufacturers of graphic arts coatings and the sign painters who use them in their trade.

Almost all of the lettering enamels and poster and bulletin colors used by professional sign painters are "masstones" -- that is, the pigmentation consists almost entirely of color pigments, with almost no white pigment added to lighten or tone down the strong color. Lead-containing pigments are used to obtain the yellow and orange and certain shades of the green and red paints used by sign painters. These colors account for approximately half of all the colors used in the sign painting trade.

<sup>\*/</sup> Draft EIS at III-15.

<sup>\*\*/</sup> Id. at III-16.

The graphic arts coatings used by sign painters for lettering must have several performance characteristics: hiding power, brilliance, a viscosity or consistency that permits brush application, exterior durability and light-fastness, flow-out of brush marks, and gloss. For certain colors, in particular yellow, orange, and some shades of green and red, this combination of characteristics can be obtained only with lead-containing pigments. For those colors there is simply no substitute for lead-containing pigments which provide the characteristics needed by the sign painting trade.

Hiding power is of prime importance to sign painters. It allows them to complete a lettering job in a single trip to the job location and with one brush stroke for each single line or curve of each letter. To repaint the lettering with a second coat is slow, costly, and an extremely difficult process because of the free-hand nature of much professional lettering; covering exactly the same area with a second coating is simply a very hard task to accomplish successfully.

<sup>\*/</sup> The wet paint film levels or flows just enough so that the brush marks or miniature ripples produced by the brush will disappear, permitting the film to dry completely smooth without those ripples or marks. (At the same time the flow must not be too free, or the wet film would drip or run down a vertical surface.) Excessive viscosity prevents flow-out of brush marks.

Non-lead-containing pigments (when used in masstone colors as distinguished from pastels) have a special
technical failing: If they are used in high concentrations
in an attempt to obtain hiding power comparable to that of
lead-containing pigments, they produce paints which are
too viscous to apply with a brush and certainly too viscous
for the delicate and artistic brush work involved in lettering. This failing is compounded by the tendency of
such paints to steadily increase in viscosity during storage
prior to use. Attempts to overcome high viscosity through
thinning results in a loss of hiding power, gloss, and
durability. Thus, without lead-containing pigments for
yellow, orange, and certain shades of green and red, the
sign painter cannot have both the hiding power and the
viscosity that are essential to brush lettering.

The possible substitutes for lead-containing pigments currently available are not only inadequate in
performance, but are also much higher in cost. One of the
most popular lead-containing pigments used in the manufacture
of graphic arts coatings is Chrome Yellow. As the Draft
EIS noted, Chrome Yellow is largely used for its brightness,

<sup>\*/</sup> As a manufacturer tries to increase the amount of nonlead-containing pigments in the formula in an attempt to get hiding power closer to that provided by the lead-containing pigments, there is an increase in the viscosity of the product and the result is a jel rather than a paint.

good hiding power and durability. The cost per pound of Chrome Yellow to manufacturers of graphic arts coatings ranges from 83 cents to 93 cents. A substitute which would provide far less hiding power along with excessive viscosity, but which is the best currently available, Hansa Yellow, costs from \$4.50 to \$5.75 per pound. Similarly, the available substitutes for another popular lead-containing pigment, Molybdate Orange, are also both inadequate and much higher in cost. The per pound cost of Molybdate Orange to manufacturers is \$1.09. The available inadequate substitutes would be, depending on whether the end product is to be red, maroon or orange, either Chlorinated Paranitraniline Toner at \$3.60 per pound, Toluidine Toner at \$3.80 per pound, or Dinitraniline Orange at \$3.70 per pound.

Additionally, the cost of the product would be further increased due to the fact that the substitution of these products would not be on a pound-for-pound basis.

A manufacturer would have to use much larger quantities of Hansa Yellow in order to approximate the hiding power obtained from a single pound of Chrome Yellow. Thus, while Hansa Yellow may cost from 5 to over 6 times more than Chrome Yellow on the basis of a straight substitution, in order for it to attempt to approximate the hiding performance of Chrome Yellow for sign painters, the cost ratio as a substitute would be

<sup>\*/</sup> Draft EIS at 1-B-6.

much higher since much larger quantities would have to be used.

tutes, there would necessarily be a substantial increase in the cost of graphic arts coatings which now utilize lead-containing pigments in their production. In the case of Consumers Paint, this increased cost would be reflected in the price of approximately 44% of all the graphic arts coatings which it currently manufactures. The increased price of these products would undoubtedly inhibit the employment of sign painters as the increased cost of this tool of their trade would be felt by those who pay for their services and thus lessen their attractiveness.

This adverse impact, which would be felt both in quality and cost, is unnecessary to achieve Congress' and the Commission's objectives in this proceeding. The aim of CPSC in regulating lead in paint is to eliminate possible hazards to young children who may chew the dried film found around their homes. Since graphic arts coatings are not used around the home, it is clear that a denial of the exemption would not aid in attaining this objective. As the Draft EIS noted with regard to Chrome Yellow,

. . . [Chrome Yellow is] used in paint products not generally sold to consumers. The largest use is in yellow traffic paints for which Chrome Yellow is chosen for its brightness, good hiding power, and durability. Other uses are on school buses and gasoline stations.\*/

<sup>\*/</sup> Draft EIS at 1-B-6.

As to the specific use of graphic arts coatings, the

Draft EIS also observed that "these products are sold

almost exclusively to professionals, and are not generally

considered as consumer products." Therefore, only in

"extreme cases" would children be even likely to have

\*\*/

access to chips and peelings from such products.

In summary, denial of the proposed exemption for graphic arts coatings would indeed have a substantial adverse economic impact on manufacturers as well as sign painters. And as we showed in our comments of February 2, 1977, the denial is not necessary to protect the safety of children. A grant of the proposed exemption for graphic arts coatings is wholly consistent with the purpose of the CPSA.

Respectfully submitted,

Ronald J. Greene

Richard A. Lowe

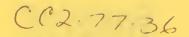
Wilmer, Cutler & Pickering 1666 K Street, N.W. Washington, D.C. 20006 (202) 872-6000

Counsel for Consumers Paint Factory, Inc.

<sup>\*/</sup> Draft EIS at III-16.

<sup>\*\*/</sup> Id. at III-18.







The Sherwin-Williams Company 101 Prospect Avenue, N.W. Cleveland, Ohio 44115 Phone (216) 566-2441

Harold E. Spitzer
Vice President and Technical Director—
Coatings Group

SATERIAN STATES

March 21, 1977

Ms. Sadye E. Dunn
Secretary
Consumer Product Safety Commission
Washington, D.C. 20207

Re: Draft Environmental Impact Statement on Lead Content in Paint dated January 19, 1977, Contract No. CPSC-C-77-0009

Dear Ms. Dunn:

The Sherwin-Williams Co. has and continues to strongly support efforts to reduce the possibility of ingestion of materials harmful to children. Sherwin-Williams has over the last four years removed lead driers and pigments from Consumer type paint for architectural use. We are conforming to the practice of not adding lead-containing compounds to these paints and restricting the known level of lead contamination from our raw materials so that the finished product will contain less than 0.06% lead on the non-volatile paint. Paints packaged in aerosol containers for consumer use (overall painting rather than simply touch up) have already been formulated to a .06% maximum lead). This reduction was accomplished promptly with some sacrifice in quality and cost of certain slower drying colors among the color ranges of the several trade sales lines of products for interior and exterior use in dwellings. This prompt action does not constitute an endorsement of the lead toxicology date from field surveys and animal feeding laboratory studies on which the LBPPPA is based.

We accept also the .06% restriction as it applies to toys and other children's articles. However, we are concerned about the application of the .06% level to all articles found in or around the home. The problem of ingestion of excessive amounts of lead was identified as children with pica chewing paint chips. These chips were accessible primarily in deteriorated houses which had been painted with high lead-containing products. These houses are often 40-50 years old with multiple coats of paint often 10-20 mils thick. By contrast, it is virtually impossible for a child to remove and ingest coatings on articles such as appliances (refrigerators, air conditioners, etc.), automobiles, lamps, etc. Coatings on such articles are generally not over 2 mils thick, (and the articles themselves would rarely have a useful life of anywhere near 40 years). There should be some criteria on which to base judgment as to the unreasonable risk these coatings pose to children and the possibilities of their ingesting the dried film.





Ms. Sadye E. Dunn March 21, 1977 Page Two (2)

"Unreasonable risk" is scarcely discussed in the CPSC January 19, 1977 "Draft Environmental Impact Statement" in regard to correlating Health Effects in Section I-D, to sources of lead in Sections of I-B and I-C, and to kinds of paints and uses thereof in Sections II and III. Preoccupation with animal feeding studies of the various physiological effects of laboratory reagent lead have diverted attention from the real world of accessibility of lead in paint. Prior to the recent National Bureau of Standards Report NB SIR 76-1024, April, 1976, on "Statistical Analysis of Blood Lead Levels of Children Surveyed in Pittsburgh, Pennsylvania: Analytical Methodology and Summary" there was no statistically sound definition of "unreasonable risk". Until that statistical approach is extended to other communities and to categories of paint products and painted surfaces, there is no statistically valid definition of "unreasonable risk".

"Unreasonable risk" relates to many kinds of factors. Among these are:

- 1. Frequency of exposure, e.g., a painted toy in the hand of an infant or toddler where mouthing of toys is a common activity versus a painted automobile alongside a dwelling.
- 2. Geometry of accessibility, e.g., a gnawable window sill edge with a radius under one-fourth inch versus a refrigerator with few chewable edges.
- 3. Tenacity of the paint to its substrate. This combines the properties of adhesion, hardness and tensile strength. There may be several orders of magnitudes of difference between a paint which peels from a plaster wall when water from behind it soaks it off versus a refrigerator case where paint is still intact after twenty years in a home and more years on a refuse dump.

One convenient measure of tenacity is "pencil hardness".

"Pencil Hardness" as defined in ASTM D3363, "Standard Method of Test for (Paint) Film Hardness by Pencil Test" uses fourteen standardized pencils, from 6B (very soft) through HB and F to 6H (very hard) with chisel-shaped graphite cores to impinge on a paint surface to be tested. Pencil hardness is a very common test on factory applied paints on metal where high values of hardness, strength and adhesion are primary objectives. This test can be thought of as intermediate between Mohs' scale of hardness (where diamond is ten and graphite is one) and what the "milk" teeth of a small child can do to a painted window sill. This D3363 test is less commonly used on paints on wood, plaster and other non-metals because the substrate is more resilient and these paints are commonly softer. Thus, this test is all the more appropriate to establish ranges of magnitude of "unreasonable risk" for various categories of paints. A list of these magnitudes may be used for CPSC exemptions of paint categories as follows:



Ms. Sadye E. Dunn March 21, 1977 Page Three (3)

Hardest	4н-6н	Enamels applied in factories and baked or catalyzed on metals and wood, e.g., refrigerators, et al.
Very Hard	Н-3Н	Enamels applied in factories and air dried or "force dried" such as furniture.
Hard	В-НВ-Г	Enamels applied in the field, as with Automotive Refinishes. An HB enamel may resist a strong thumb nail.
Soft	4B-2B	Wall and trim enamels for dwellings.
Very soft	6B-4B	House Paints.

"Pencil Hardness" can be used both to establish paint categories for exemption by CPSC and by field inspectors where a painted surface category is open to interpretation by him. The pencil hardness test can also be useful in field inspections for extra risk due to softening by water.

"Wet Adhesion" means to a paint technologist a need to distinguish between the good adhesion expected on a normally dry substrate and the loss of adhesion due to soaking by water, either on top as on a window sill or from behind as through wall plaster from a plumbing leak in a neglected house. Typical factory coated appliances and furnture and automotive finishes are likely to suffer no loss of adhesion, whereas a wall paint may, particularly if it is either a very old and neglected paint or a very fresh water-reduced coating. Thus, this relatively simple test could serve a dual purpose.

Touch-up enamels for automobiles, agricultural and industrial equipment, boats, outboard motors, motorized recreational vehicles and appliances sometimes require the use of lead. Where lead-containing pigments are used in the original finish, it is not possible to match the colors without the use of similar lead pigments in the touch-up enamels. These products are intended primarily for use by auto repair shops and the like. They can, however, be purchased by the consumer to repair the finish on such articles. The health hazard is minimal since the products once dried are practically inaccessible to chewing. For these items and many of the types of coatings for which National Paint & Coatings Association petitioned for exemption (Federal Register-21-CFR 191.9) the technology to reduce lead to .06% does not now exist.

In view of the minimal or non-existent danger to health, we urge the Commission to define certain categories of coatings as not being consumer products and thus not subject to the regulations.

Automotive, Agricultural, and Industrial Equipment Refinish Coatings.

Automotive, agricultural and industrial equipment refinish coatings are functional coatings which provide protection to the surfaces from the hostile environment to which they are subjected. The coatings are





Ms. Sadye E. Dunn March 21, 1977 Page Four (4)

> characterized by application of thin films (approximately 2 mils), extreme hardness, excellent adhesion, abrasion resistance, corrosion resistance and color retention (generally will not fade or chalk). Lead driers are used to speed the oxidation curing of the film to reduce the amount of dirt or dust particles trapped in the film. Lead pigments are used to match the factory-applied original finish. It is impossible to match the original lead-containing finish with non-leaded pigments as the non-lead pigments will fade causing the refinished areas to be unacceptable to the customer. The refinish coatings are designed for spray application to metal and do not obtain satisfactory results when applied by brush or roller, thus practically precluding the use of these coatings around the household on surfaces accessible to children. The cost of these products is generally 30% to 50% greater than the non-lead containing consumer products that are designed for easy application to surfaces and articles in and around the household. It is extremely unlikely that consumers would purchase these refinish coatings for application to household surfaces of articles, when less expensive, better suited products are readily available.

The refinish coatings are designed for application to very specific surfaces demanding characteristics of hardness, abrasion resistance, color, color retention, corrosion resistance and durability. These coatings are used only as intended because of cost, method of application and unsatisfactory results when applied to surfaces other than intended.

Sherwin-Williams manufactures three basic types of automotive refinish coatings:

- A. Alkyd enamel coatings which require lead driers and lead pigments in various colors. These coatings generally are used for complete automotive refinishing.
- B. Acrylic enamel coatings which require lead driers and lead pigments in various colors. These coatings are used for complete refinishing and refinishing of large sections of cars.
- C. Acrylic lacquer coatings which do not contain lead driers. Approximately 27% of the colors contain lead pigments. These coatings are generally used for spot and small area refinishing.

The alkyd and acrylic enamels and approximately 27% of the lacquer formulas would not be available, if these coatings containing lead were banned as the present technology for possible substitute pigments and driers does not give satisfactory performance for cure time, color matching and durability. Consequently, many repairs on the body of automobiles that now would be a partial refinish job would become a complete refinishing job.

Sherwin-Williams will not discuss the economic impact of a 0.06% level in automotive paints. Rather, we have supplied data to the NPCA for use in the economic impact statement they prepare for the industry.



Ms. Sadye E. Dunn March 21, 1977 Page Five (5)

2) Industrial (and commerical building) Maintenance Coatings, including Traffic and Safety Marking Colors.

The industrial maintenance coatings are formulated and designed for the coating of industrial plants and equipment, commercial buildings and structural steel. There are many types of coatings available because of the various environmental conditions to which they are subjected, such as resistance to heat, sun, water, salt, acids, alkali, organic materials and abrasion. The demands of these coatings for the specific conditions to which they are subjected require utilization of the best technology available. Lead pigments and driers must be used in many of these coatings to provide the maximum durability and color retention. Many of the maintenance coatings require extensive surface preparation in order to achieve the proper adhesion to the metallic surfaces. Substitute pigments would require more frequent and costly repainting.

The safety marking colors are specific colors under OSHA regulations, federal and military specifications, and voluntary organizations such as American National Standards Institute (ANSI). Lead pigments are used in yellow and orange marking colors for their brilliance and durability. There are not any non-lead pigments to substitute which have the same brilliance and durability as the lead pigments. The coatings generally are used in industrial and commercial buildings to warn of hazards that exist.

Traffic marking paints are controlled by federal, state and local government specifications. They must conform to specific color, drying time and durability which are all based on lead pigments. There are no existing non-lead pigments available to achieve the requirements of the traffic paints.

The areas and surfaces on which the maintenance paints, safety and traffic marking colors are used are not reasonably accessible to small children so that the risk of ingesting these coatings is negligible. The cost of the coatings is generally 50% higher than consumer coatings designed for the household. These products are generally packaged in one gallon or larger containers and seldom, if ever, found around the home.

Graphic Arts Coating (products marketed solely for application on bill-boards, road signs and similar uses, and for identification marking of industrial buildings). The graphic arts coatings are designed to withstand outdoor exposure over a long period of time and retain their color brilliance and durability under the condition of sun, extremes of temperature and rain. There are no non-lead containing pigments available that will match the performance of the leaded pigments in colorfastness and durability. There is no acceptable non-leaded pigment for some of the yellows and reds that can withstand the temperature when baked without changing color.



Ms. Sadye E. Dunn March 21, 1977 Page Six (6)

These coatings are expensive and generally not available to the consumer. The surfaces to which these coatings are supplied are not accessible to children. Therefore, the risk to children is negligible.

4) Exterior Marine Coatings for small craft application. Lead pigment is used as a necessary corrosion resistant pigment on steel parts of small crafts which will be exposed to water, especially salt water. There are no substitute pigments that will give the same corrosion resistance. More frequent painting of these surfaces will be required. Spar varnishes are used extensively on decking and all exterior parts of wooden water crafts. It is necessary for these coatings to withstand the constant exposure to the water without adversely effecting the protective quality the coatings impart to the wood. The deck coatings are walked on necessitating an abrasion resistant quality. There is presently no drier system that can be substituted for the lead driers and impart all the necessary requirements of the spar varnishes. The marine coatings are more expensive than better-suited consumer products for use in and around the household. The surface to which these coatings are intended are not accessible to small children.

All of the coatings listed in the NPCA petition that we manufacture have very specific precaution statements relating to the lead content. The following statement is an example of the caution applied to the labels on a product containing lead greater than 0.06%.

(FRONT PANEL)

WARNING

CONTAINS LEAD

DRIED FILM OF THIS PAINT MAY BE

HARMFUL IF EATEN OR CHEWED

Before using, carefully read CAUTIONS elsewhere on label.

(BACK PANEL)

### CAUTIONS

CONTAINS LEAD. Avoid breathing vapor and spray mist. Use only with adequate ventilation. Avoid contact with skin and eyes. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. Respiratory protection must be used when sanding, wirebrushing or other types of abrading and while burning, brazing or welding the dried film of this paint.



Ms. Sadye E. Dunn March 21, 1977 Page Seven (7)

#### DO NOT TAKE INTERNALLY

### KEEP OUT OF THE REACH OF CHILDREN

CONTAINS LEAD. Do not apply on toys and other children's articles, furniture, or any interior surface of a dwelling or facility which may be occupied or used by children.

Do not apply on any exterior surface of dwelling units, such as window sills, porches, stairs, or railings, to which children may be commonly exposed.

The cautions give adequate warning of the danger of ingesting dried film and designate the types of surfaces to which the coating should not be applied. The caution also warns not to transfer the contents to other containers for storage so that the label warnings will not be separated from the contents.

Appliances should not be considered furniture. They should be listed as a unique household product. Appliances have large flat surfaces with a very hard factory applied and baked coating. The surface is not chewable nor can it flake or peel. Therefore, ingestion of appliance finishes presents no risk to small children.

Metal furniture should be exempted from any ban on furniture. Coatings for metal furniture are baked finishes which provide a hard abrasion resistant film with excellent adhesion to the substrate. These coatings will not peel or flake off and are not chewable. Most metal furniture is used outdoors or as office furniture. These have to withstand exposure to the element or constant wear in order to justify the high initial cost. Lead primers and lead driers are used in these coatings to achieve the durable coating required. As previously mentioned lead driers and pigments are the best available materials to impart corrosion and abrasion resistance to coatings on metallic surfaces.

The specialized coatings in this discussion are primarily for application to non-household surfaces and are not intended or suitable for use on surfaces accessible and chewable by children either because of size, location or shape of the articles. These coatings are characterized as very hard, abrasion resistant, thin films which do not peel or flake off as chips.

These coatings are developed and sold for very specialized purposes. Generally, they are designed for spray application by professionals and do not perform satisfactorily when applied by brush or roller. Many of these coatings cannot be applied directly from the container as sold, but require 15 to 50 per cent reduction with the appropriate solvent for each of the coatings. It is unlikely that the consumer would use specialized products because of their high cost and the necessity of purchasing additional solvent for reduction, when less expensive





Ms. Sadye E. Dunn March 21, 1977 Page Eight (8)

consumer products are readily available. The precautionary labeling on these specialized coatings warns that the products contain lead and therefore, should not be used on surfaces in and around the household.

For these reasons we feel the exemptions discussed above should be granted.

Very truly yours,

THE SHERWIN-WILLIAMS COMPANY

J.E. Spitzer

HES/cda



PPG INDUSTRIES, INC./ONE GATEWAY CENTER/PITTSBURGH, PENNSYLVANIA 15222/AREA 412/434-3719

March 22, 1977

ELMER C. LARSEN, Vice President General Manager, Coatings and Resins Division

Office of the Secretary Consumer Product Safety Commission 1111 18th Street, N.W. Washington, D.C. 20207

In re: Consumer Product Safety Commission Notice, Dated February 11, 1977 Published in the <u>Federal Register</u> for February 16, 1977 (42 F.R. 9404)

Dear Sirs:

In response to the Commission's invitation for comments on the environmental impact statement relating to the proposed Commission action on regulating lead - containing paint, herewith are enclosed the written comments of PPG Industries, Inc.

Sincerely yours,

Elmer C. Larsen

Vice President and General Manager Coatings and Resins Division

Enclosure
(in quintuplicate)

COMMENTS OF PPG INDUSTRIES, INC., ON THE PROPOSED CONSUMER PRODUCT SAFETY COMMISSION REGULATIONS UNDER THE CONSUMER PRODUCT SAFETY ACT IN LIGHT OF THE ENVIRONMENTAL IMPACT STATEMENT INSOFAR AS THEY AFFECT LEAD-BEARING PAINTS

I.

PPG Industries, Inc., a Pennsylvania corporation, hereinafter called "PPG," manufactures and distributes paint products which contain in excess of 0.06% of lead by weight. Some of these products may be classified as consumer products and some as industrial and industry products. Some of these paints are used as components (coatings) of furniture and of some other items which are furnishings and the like. No matter under what guise the Commission's action takes place, its aim is, we believe, primarily to protect children from the hazards of ingesting lead-containing paint droppings which usually make their appearance in the form of dried chips or flakes.

The review of the legislative history, as well as of the proceedings originally undertaken, under the provisions of the Federal Hazardous Substances Labeling Act, as subsequently amended, and under the provisions of the Lead Paint Poisoning Prevention Act, as amended, it is clear that the particular purpose was to protect children from unreasonable risk of harm. Although, under the Consumer Product Safety Act, the thrust seems to be addressed at the consumer, the danger to children of such ingestion was recognized since it may be difficult, if not foolish, to maintain that ingestion of dried paint chips or flakes by adults is a normally foreseeable condition creating an unreasonable risk of harm in the product which causes such chips or flakes to exist, to-wit, a lead-bearing paint.

When the original proceedings to declare lead-bearing paint, surfaces covered by it, etc., as a banned hazardous substance were being conducted by the Food and Drug Administration, PPG, under the date of January 23, 1973, submitted to the Hearing Clerk of the Department of Health, Education and Welfare its memorandum in support of the proposed amendment to the banning order to exempt certain leadcontaining coatings from the classification of banned hazardous substances. The memorandum which was then submitted made it clear that PPG supported the ban insofar as it was applicable to lead-bearing paints designed for use in households and dwellings or other places that children could congregate and be exposed to the hazard of ingesting paint chips and flakes. However, at the same time, PPG expressed its support of the amendment exempting certain coatings which, in the strictly technical interpretation of the regulations could be classified as banned hazardous substances but which in reality were not such substances since the coatings as applied would not be likely to result in surfaces, chips or flakes that children could reasonably be expected to chew or ingest.

PPG hereby incorporates its earlier views as being applicable to the matter now at hand. For easy reference, a copy of the January 23, 1973, memorandum is herewith attached.

II.

Since the environmental impact statement is supposed to reflect the effect of activity of banning the substances upon the environment and since the environment includes not only the flora and fauna, but also the inhabitants, the risk and benefit balance must be considered.

The commercial application of lead-bearing paints to commercial establishments or industrial establishments does not expose children to the hazard of picking and eating paint chips. Naturally, hospitals, schools and places where children may sojourn or congregate should be excluded from the commercial classification. Application of the leadcontaining paint to certain surfaces in industrial and commercial establishment should also not expose children to the hazard since, in most instances, principally automotive refinish shops and other similar type establishments, the paint applied to a metal substrata after it is dry is not readily capable of being chewed so that the paint chips and the lead therein cannot be ingested. Traffic marking and zone paints, which increase visibility and alert motorists and pedestrians to traffic hazards, require a high degree of brightness. Yellow or orange colors must be permitted for application on highways and other similar locations. Again, they do not present a substantial risk of harm, since chewing of paved surfaces on highways or in industrial establishments by children is not likely.

In considering the impact of the regulations, the economic burden on the inhabitants, that is, the consumers, must be considered if the regulations are to be structured or interpreted so as not to countenance the exemptions previously sought or administered in order to encompass areas clearly not intended to be covered by the Congress of the United States. The economic burden is important where the technical strict interpretation results in a minute reduction of the hazard since the hazard (ingestion of lead-containing paint chips or flakes) in those areas does not materially exist. This is not a situation where the hazard may be now discovered, where the hazard did not appear to exist years ago, because of more sophisticated methods of measurement, detection, and medical knowledge, but a hazard whose presence or absence depends in the first instance on a very important, but a simple, fact. Can the lead-containing surface be chewed and then ingested? Taking as an example paints used to refinish automotive equipment, let us address ourselves briefly to the matter of the added cost imposed upon the consumers by the lack of exemption.

It is generally assumed, and we do not believe that the Commission's role is to do otherwise, that an automobile represents "status" to an average consumer. Consequently, the automobile must look as opulent as possible regardless of its age and exigencies of traffic mishaps, effect by the elements and other causes. The automobile refinish applied after many years has to look as well as the original finish did when the car left the factory; the consumers ask for it. Not everybody, even today with the energy shortage, takes the utilitarian view of the automobile.

The refinish must first match the original finish. A substantial portion of the original finishes contains lead. Lead is not only utilized to give the desired hue or effect but also to give a better lasting quality to the paint. If all automobiles originally to be repainted are repainted with non-lead-bearing paints, such a match will not be possible. In most, if not all, instances, a complete paint job will be required, at about double the cost, since few people like to have a variegated car. We are not talking here about custom painting, but about effects of improper match, lack of hiding and early deterioration which may occur without the lead present in the paint.

It is estimated by insurance carriers that about one out of every 13 automobiles is refinished each year. We are talking about the substantial burden which will add to the consumers already strapped for cash well in excess of half a billion dollars. An additional expenditure just for "new" paint jobs will not contribute an iota to the abatement of the lead paint ingestion hazard. The additional cost of the non-lead-bearing paint will have to be included, since the cost of raw materials without lead will be higher. Although the comments here are made by the manufacturer, let us say in all fairness that an increased cost is not absorbed by the manufacturer but is usually passed on to the consumer.

The other areas for which the exemptions were being sought insofar as they deal with the application of the coatings to surfaces which are clearly not chewable or even potentially chewable, including metal objects, whether movable or not, of the various shapes and sizes and all industrial and commercial maintenance surfaces do not contribute to the hazard. The replacement and change, although not as emphatically governed by the color match, will nevertheless be governed by the matters of durability, fading and other factors. The replacement of certain components will again increase the cost and since in our economically-free society the cost is eventually absorbed by the consumer, the consumer will pay for it whether the consumer is small or large. If hazard was thereby reduced, the increased cost might be justified. But this is not the case. By permitting the use of lead in these certain circumstances in paints will not contribute to the hazard and will maintain the quality of the coatings that by now the consumers have come to expect.

- 4 -

III.

It appears that the Environmental Impact Statement filed in connection with the proposed regulations to be issued under the provisions of the Consumer Product Safety Act and Lead-Based Paint Poisoning Prevention Act did not take into account one type of "paint" which contains more than .06% of lead by weight in the dried film; in fact such paint usually contains from 10 to 25% of lead by weight in the dried film. That paint is the mirror backing paint, hereinafter referred to as the "Mirror Backing." Perhaps the reason for such omission is the fact that Mirror Backing is not a consumer product applied on surfaces to which children may be exposed. Mirror Backing is not a component of furniture and such mirror backing is not a "hazardous household substance." Mirror Backing is normally and universally applied to the back of the mirror whether such mirror is a free standing, affixed to the wall or made a part of another article.

Mirrors are prepared by applying a continuous film of silver metal to one side of a clean sensitized glass surface. The highly reactive silver is immediately coated with a protective thin film of copper. This composite metal film is coated in-line within several minutes with a backer coating to completely seal it from environmental attack. For example, salt from human hands would immediately react with the silver on a cut edge to form a dark precepitate of silver chloride. Mirror backing having a lead concentration from 10 to 25% by weight forms a film highly impervious to moisture and salts. Lead containing mirror backing also has excellent adhesion to the silvered surface. The latter feature is important during in-plant cutting and working of mirror edges. Non-lead containing mirror backing has a tendency to flake off during edge cutting operations while those containing lead do not tend to flake off.

Outside of making the process of cutting feasible, Mirror Backing performs another quite important function and that is to prevent "black edge" corrosion on the mirror, that is a condition which will cause the mirror to look cloudy or tarnished. This condition is most likely to occur in the geographical areas of high humidity and where salt water is present in the air. However, this is not to say that even in drier areas "black edge" does not occur. The lead in the Mirror Backing also functions to react with airborne sulfur compounds which would otherwise tarnish the silver and cloud the mirror in the same manner as silverware is tarnished.

Although economic considerations are not normally given the weight accorded to other factors in the decision making process when the matter of unreasonable risk of injury is being passed on, nevertheless, economics play an important role in the environmental impact of the regulations.

- 5 -

The absence of lead in mirror backing results in adverse field service life expectancy of a mirror. The Government Specifications DDM 411b requires that the penetration or corrosion from a cut edge of a mirror when exposed for 150 hours in a laboratory salt spray vapor test should not exceed 3/16 of an inch. Non-lead bearing backing did not perform as required. A lead containing mirror backing normally has a penetration in the range of 0 to no more than 2/16 of an inch in 150 hours of salt spray vapor testing. The actual service life expectancy of mirror backed with lead containing paint can be expected to be in excess of 25 years with normal humidity exposure.

The removal from the market of Mirror Backing containing lead will adversely affect the mirror industry. It will result in a product not having the positive characteristics of the mirror backed with lead containing paint. It will result in higher costs to consumers due to early replacement of the mirrors. This will result in reduced usage of mirrors in many applications.

Probably the most important factor to consider in the matter of Mirror Backing should be the absence of the hazard of lead ingestion which could be reasonably attributed to the presence of the Mirror Backing on the rear of mirrors. Mirror Backing paint seals off the reflecting silver and provides for good adhesion so that no loosening or falling off of Mirror Backing free of the "mirror" can occur. Because of such adhesion it is possible to cut the mirror sheet, which really is glass, without flaking.

In the case of mirrors used as a furnishing, in order for a child, or anybody else for that matter, to get at the Mirror Backing to ingest the lead containing paint will require the breaking of the integrity of the mirror. When such breaking occurs, the ingestion of pieces of glass, whether or not "backed" with lead containing substance almost universally will result in a fatality or a very severe injury.

In case of ladies compact mirrors, it would not be possible for an infant to bite on the mirror backing without first breaking the mirror. When the mirror is bitten it would break in the mouth with an obvious result.

The market for mirrors in the United States is about 140,000,000 square feet of glass sheet annually about 98% of which has the lead containing backing applied to it.

Consequently, we believe that Mirror Backing was not intended to be covered by the Lead-Based Paint Poisoning Prevention Act since it would not create the hazard for the abatement of which the Act was enacted. A mirror is not furniture. A mirror may be a consumer product, however, mirrors with Mirror Backing do not present any higher degree of hazard than a backing that does not contain lead. In fact, the mirror not backed with sufficient quantity of lead may present a greater hazard by being more susceptible to flaking off of the coating on the edges.

It is therefore respectfully submitted that the Consumer Product Safety Commission when promulgating the appropriate regulations whether under the Consumer Product Safety Act, or as an amendment to the hereto fore existing regulations under the Federal Hazards Substances Act, not include mirror backing paint as a substance or commodity or a consumer product which is banned or, if it appears to the Commission in its wisdom that the mirror backing paint is subject to the regulations, which we earnestly believe the product is not, that in such an event, an appropriate exemption therefrom should be made by the Commission in an appropriate form.

PPG

3/22/77





### INDUSTRIES

PPG INDUSTRIES, INC./ONE GATEWAY CENTER/PITTSBURGH, PENNSYLVANIA 15222/AREA 412/434-3719

ELMER C. LARSEN, Vice President General Manager, Coatings and Resins Division

January 23, 1973

Hearing Clerk
Department of Health, Education, and Welfare
Room 6-88
5600 Fishers Lane
Rockville, Maryland 20852

In re: /21 CFR Part 191/ BANNED HAZARDOUS SUBSTANCES Proposed Exemption of Certain Lead-Containing Paints And Other Similar Surface-Coating Materials

Dear Sir:

In response to the notice of the proposed rule making published in the Federal Register for Tuesday, December 5, 1972, (37 F.R. 25849), PPG Industries, Inc. respectfully submits its views on the proposed amendment to Section 191.9(a)(6)(i) to exempt certain lead-containing coatings from classification as banned hazardous substances.

PPG Industries, Inc. most respectfully urges that the proposed amendment be adopted as it is in the public interest since the coating materials to be exempted present no significant lead poisoning hazard to children.

Attached hereto is a memorandum in support of this Company's position.

Sincerely yours,

Elmer C. Larsen

Vice President and General Manager Coatings and Resins Division

Enclosure
(in quintuplicate)

MEMORANDUM OF PPG INDUSTRIES, INC. IN SUPPORT OF THE PROPOSED AMENDMENT TO SUB-DIVISION (i) OF SECTION 191.9(a)(6) of TITLE 21 OF THE CODE OF FEDERAL REGULATIONS DEALING WITH BANNED HAZARDOUS SUBSTANCES

I.

PPG Industries, Inc., a Pennsylvania corporation, hereinafter called "PPG", manufactures and distributes certain of the coatings that are the subject matter of the proposed amendment to exempt such coatings from the classification as banned hazardous substances. PPG also manufactures and distributes coatings that are not classified as banned hazardous substances and it did in the past manufacture and distribute lead-bearing paints and similar surface coatings that are now classified as banned hazardous substances. As such manufacturer and distributor, PPG is vitally interested in seeing to it that the users of its products are not exposed to undue hazards in their use and application. Consequently, PPG strongly supports the premise underlying the declaration as banned hazardous substances and the resulting prevention of use of paints and similar surface coatings, that contain proscribed levels of lead, which by being applied to certain surfaces may present a hazard to children who augment their diet by chewing thereon.

However, by the same token, PPG strongly supports the proposed amendment since the coatings, the subject matter of the amendment, are not intended for use in a household, and on surfaces or objects to which

children should reasonably be expected to be exposed. The published literature and even the testimony and arguments of the strongest proponents of the curtailment of the use of lead in coatings indicate that the danger and hazard to children arising out of lead-bearing paints centers almost exclusively on the accessible surfaces of dwellings and articles to which children may commonly be exposed like toys, children furniture and the like. Human experience in published data fails to reveal instances of ingestion of lead by children from surfaces to which the coatings, for which exemption is sought, are applied, such as surfaces of automobiles and industrial equipment, bottoms of boats, highways, traffic signs and the like.

II.

It is most unlikely that many of the coatings, the subject matter of the proposed amendment, can be used for application on proscribed surfaces. Even if such coatings somehow are brought into the household, it is most unlikely that many of them, primarily automotive refinish coatings and the like, will be used on the interior or exterior surfaces of dwellings because of the nature of such coatings, their special hue and because of the difficulty of application by the methods customarily used by a householder, that is by brush or ordinary roller. Most of them require rather sophisticated application equipment since many of them are quick drying. With respect to touch-up coatings, these are distributed in containers having usually not more than a few ounces of paint. It would be highly improbable that containers bearing such relatively

small quantities of paint will be used to cover interior or exterior surfaces of dwellings since, in addition, the nature of the touch-up paint is such as to result in a poor painting job when applied to larger surfaces. It is also most unlikely that most of these coatings would be purchased by householders for use in and around the house because, generally speaking, such coatings are rarely, if at all, available in the customary retail channels of trade and their cost to the consumer, primarily automotive refinishes and touch-up paints, is much higher than that of the appropriate grade of household paint.

III.

Lead is frequently the necessary component of the coatings, the subject matter of the proposed exemption. Lead is not formulated into such coatings because it is cheaper. Lead is added because of its performance as a component of such coatings. Lead is the necessary component for the following reasons:

a. Lead containing pigments are used in original industrial coatings such as automotive, agricultural equipment and industrial products as well as in industrial and commercial maintenance coatings for both appearance and resistance to weathering and corrosion purposes. Refinish or touch-up coating for automotive, agricultural equipment or industrial products require the use of the same pigments as employed in the original product for the sake of similarity of appearance as well as weatherability or corrosion control.

- b. Lead driers are used in some of the coatings in catalytic amounts and are used to speed the oxidation or drying of the coatings. These lead driers are particularly important in some of the touch-up and refinish coatings where they speed the through dry of the film more efficiently than other metal driers, and thereby prevent dirt or dust becoming imbedded in the paint film.
- c. Lead containing pigments, such as red lead, are particularly essential in industrial and commercial maintenance coatings, particularly as aids to corrosion resistance and weathering.

  Red Lead primers, for example, are important in corrosion resistant coatings for structural steel, bridge and highway paints and industrial equipment coatings.
- d. Lead pigments are also important ingredients of bright colors of good durability employed in safety colors and highway marking paints. For example, the yellow paint pigment that meets the cost requirements and most readily meets the special color standard specified for all cautionary highway control devices, including signs, is lead chromate or "chrome yellow" paint.

There are presently no worthwhile substitutes for lead which could be readily used in such coatings.

If lead were not allowed in such coatings, the added protection to children would be at best minimal since there is practically no hazard

to children from the use of lead in such coatings. If lead were removed from such coatings, in the long run, the general public would suffer since the coatings without lead would not have the usefulness and the desired features required. Substitutes would be more costly, even if they could be found and there is some doubt that the substitutes could be readily found.

It must be said that the special features of lead-bearing paint in some instances are most important. In the case of traffic markings, traffic control devices and the like, bright paint is essential. It can be reasonably argued that if less visible paint of a less intense hue was used, the usefulness of such devices might not be as great. If such devices were not too useful, more problems could arise because of poor driving practices. It cannot be said that bright paint used in traffic signs or control devices is the sole cause of saving lives and property and avoiding automobile accidents; however, it must be emphatically stressed that the use of such paint contributes to the lessening of injury and damage since clear, well visible and durable warning signs are essential to protect the public from itself and to flag to it the existence of hazards.

IV.

Although when considering the public interest, the increased cost to the manufacturer and the resulting higher price to the users of the coatings, the subject matter of the proposed exemption, may not be the

most important factor, the economic consequences cannot be absolutely ignored. If the exemption is not granted, there will be higher costs and prices resulting from inadequate substitutes. The performance required of these coatings, corrosion resistance, durability, hiding efficiency and the like, will not be obtained. The coatings will not perform as they perform now and larger quantites of not as effective coatings will have to be used over the same period of time. In addition, because of the lack of technological advancement, the effort in research and development made by the industry for the betterment of its products will have to be diverted to the finding of substitutes and the reformulation of such coatings. This economic burden, although somewhat intangible, will not result in a better protection for the children, whether now or in the future. As pointed out above, these coatings do not now present a substantial hazard, if at all any hazard.

V.

The adoption of the proposed amendment will also have a secondary benefit, and quite an important one, which will be in the public interest and that is, the adoption of a substantially uniform warning label which will make easier the identification of coatings having more than the proscribed quantity of lead. It will prevent the diversion of such coating, even if unintended, to the areas where such coatings should not be applied. It will also enable the industrial users of such coatings to ascertain without much effort that such coatings should or should not be applied to toys or other articles intended for use by children.

To summarize, the granting of the exemption for the categories of the coatings listed in the proposed regulation will not increase the exposure hazard to children resulting from the presence of lead-bearing coatings on surfaces of places where children may congregate or on surfaces of toys or articles intended for use by children. The proposed amendment will facilitate the identification of coatings that are proscribed and should not be used in dwellings, on toys or articles intended for children.



PPG INDUSTRIES, INC./ONE GATEWAY CENTER/PITTSBURGH, PENNSYLVANIA 15222/AREA 412/434-2474

T. Z. KORSAK, Assistant Counsel

March 22, 1977

Office of the Secretary Consumer Product Safety Commission 1111 18th Street, N.W. Washington, D.C. 20207

In re: Consumer Product Safety Commission Notice, Dated February 11, 1977 Published in the <u>Federal Register</u> for February 16, 1977 (42 F.R. 9404) MAR 23 4 01 PM 77

MAR 23 4 01 PM 77

SAFETY COMM SSION

Dear Sirs:

Enclosed herewith are five (5) copies of the comments of PPG Industries, Inc., relating to the lead-containing paint regulations.

Please address all correspondence to PPG Industries, Inc., pertaining to the subject matter to my attention.

Very truly yours,

T. Z. Korsak

Assistant Counsel

/mnsw Enclosures (5)

# BEFORE THE CONSUMER PRODUCT SAFETY COMMISSION

112 0 1 0 5H 2"

In the Matter of:

Proposed Regulations) on Lead Content in )
Paint )

DOCKET NO. CG2477Y VE HOUSE

COMMENTS OF
FRANK R. MARVIN
ACTING DIRECTOR
ON BEHALF OF
THE OFFICE OF CONSUMER AFFAIRS

The Office of Consumer Affairs appreciates this opportunity to comment on the proposed regulations of lead-containing paints under the Consumer Product Safety Act, as published in the Federal Register on October 6, 1976. The regulation would ban lead-containing paint for consumer uses as well as certain other consumer products bearing such paint above a 0.06% lead level. We are pleased to see that the Commission has resolved all evidence concerning the safe level of lead on the side of safety by recommending the lowest level which is achievable under present technology.

The Commission has formulated five alternatives of regulatory action by using four basic variables: (1) issuance of final regulations; (2) maximum level of lead allowable; (3) effective date of regulation; and (4) scope of coverage. Our office believes that Alternative No. 3, with one major modification, would best represent the interests of the consumer. Under this alternative, the Commission has structured the above four variables as follows:

(1) <u>Issuance of final regulations</u>—lead in paint would be regulated under the Consumer Product Safety Act instead of the Federal Hazardous Substances Act.

- (2) Maximum level of lead allowable--0.06 percent.
- (3) Effective date of regulation--June 23, 1977.
- (4) Scope of coverage—the regulation would cover all trade sales paints, toys and other children's articles, and furniture, with the exception of eight special purpose coatings. Also exempted are metal furniture, metal window dressings, and appliances.

These four variables will be discussed separately.

## 1. Issuance of the final regulation

In Alternative No. 3, lead in paint would be regulated under the Consumer Product Safety Act (CPSA), and the Federal Hazardous Substance Act (FHSA) regulations on the subject would be revoked. We support the Commission's view that it is in the public interest to issue the regulations under the CPSA.

The Commission decided to proceed under the CPSA rather than to amend the FHSA regulations because such a procedure permitted the consolidation of the CPSA hearing (which was conducted on September 13, 1976) with the Lead-Based Paint Poisoning Prevention Act (LBPPPA) determination and also because it allowed a more informal oral legislative-type hearing than that required by the FHSA, thus facilitating greater public participation and a more expeditious resolution of the issues. We agree that it was in the public interest to hold such a single legislative-type hearing. However, there is another more substantial benefit to consumers in regulating lead-based paints under the CPSA, which relates to the scope of coverage of the regulations.

Regulation of lead-based paint under the FHSA is limited to articles intended and packaged for household use and to toys and other children's articles 1, while the CPSA covers all "consumer products." A "consumer product" is defined under the Act as: 2/

...any article, or component part thereof, produced or distributed (i) for sale to a consumer for use

1/ 16 C.F.R. §1500.17(a)(6)(1972).

2/ 15 U.S.C. §2079(d)(1972).

in or around a permanent or temporary household or residence, a school, in recreation, or otherwise, or (ii) for the personal use, consumption or enjoyment of a consumer in or around a permanent or temporary household or residence, a school, in recreation, or otherwise...

Thus, the CPSA's coverage of lead-based paint is broader than coverage under the FHSA because it applies not only to articles intended or packaged for household use, but also to articles which may be available to children in their schools or in recreational facilities. Because of this wider coverage, we support regulation of lead-containing paints under the Consumer Product Safety Act.

We also agree with the Commission that the FHSA regulations on lead-based paint should be revoked in order to avoid duplicative or conflicting language. In such a complex area as regulation of lead in paint, it is essential that there exist coordinated regulations in order to avoid confusion in regard to compliance.

## 2. Maximum lead level allowable

The recommended alternative also provides that the definition of "lead-based paint" would be set as any paint containing more than 0.06 percent lead. Since the Commission has determined that existing data do not support a finding that a lead level in paint above 0.06 percent is safe, we believe that safety demands this lower level rather than the 0.5 percent level recommended by Alternative No. 1 or the 0.25 percent interim level established by Alternative No. 5.

It is generally recognized that the daily permissible intake (DPI) of lead is 0.3 mg. If the lead intake per day exceeds this value, a child cannot excrete the total amount and the body begins to accumulate the lead. It has also been estimated that about 0.1 mg per day is taken in the diet, leaving a maximum of 0.2 mg per day that can be taken in from nonfood lead sources, such as paint chips. The following is a summary table of the maximum number of square centimeters of 1 and of 6 layers of interior paint with levels of .5 percent, .2 percent, and .06 percent lead which can be ingested before the DPI will be exceeded: 5/

Public Health Service, U.S. Dept. of Health, Education, and Welfare, Childhood Lead Poisoning: The Problem and Solution, App. A-3 (1973).

 $<sup>\</sup>frac{4}{5}$   $\frac{\text{Id}}{\text{Id}}$  at A-6.

LEAD CONTENT (Percent)		to Contain (2/3 of DPI) Per 6 Layers
.5	6.2	1.0
. 2	15.0	2.5
.06	51.3	8.5

Since clinical findings show that a child with pica may eat as much as ll square centimeters of paint chips per day, it is obvious from the above table that the danger of lead poisoning due to pica substantially lessens as the lead level within paint decreases. Thus, until there is evidence which clearly refutes the possibility of the potential danger of paint containing more than the 0.06 percent standard, any coating containing more than that level should be banned by the Commission as a hazardous substance.

We realize that adoption of the 0.6 percent standard would involve costs to the paint industry because of the necessary testing, monitoring, and research of lead substitutes. However, it should be recognized that these costs may be counteracted by a substantial reduction in costs to society caused by lead poisoning. In 1972, the annual cost of lead poisoning was \$195,000,000. Deaths per year caused by such poisoning numbered 200, and 6,000 children suffered neurological handicaps, including mental retardation. Because ingestion of lead-based paint is generally acknowledged to be the principal source of lead poisoning in children today, regulation of lead in paint at the lowest level that is technologically possible is a top priority in the attempt to eliminate the costs, handicaps and death caused by lead poisoning. Therefore, since the Commission has not determined that a higher level than 0.06 percent is safe, we recommend that the 0.06 percent standard be adopted.

<sup>6/ &</sup>lt;u>Id</u>. at 106.

<sup>7/</sup> Id. at 8.

### 3. Effective date of regulation

Alternative No. 3 provides that the regulation would take effect on June 23, 1977. Besides Alternative No. 1, which retains the present FHSA regulations, this alternative provides for the earliest possible effective date of regulation.

A 0.06 percent standard for lead in paint was suggested as early as March 11, 1972, when the Food and Drug Administration issued a regulation under the Federal Hazardous Substances Act declaring that paint containing more than 0.06 percent lead would be banned after December 31, 1973. This part of the regulation was subsequently stayed pending further research, which has now been completed. We believe that a stay of over three years is long enough. To delay the effective date of the 0.06 percent standard for one or two years, as suggested by Alternative Nos. 4 and 5, would mean at least one more year of applications of possibly unsafe paint to surfaces which are available to children, and at least one more year of handicaps, institutionalization, or even death to children who are exposed to these surfaces. Thus, we recommend enactment of regulations controlling all sources of lead hazards as rapidly as possible.

## 4. Scope of Coverage

The recommended alternative would regulate all trade sale paints containing more than 0.06 percent lead except for artist's paints and eight other types of coatings which are mainly used in commercial and industrial applications. The use of any lead-based paint would also be prohibited in toys, articles intended for use by children, and furniture, with the exception of (1) metal furniture, (2) metal window dressings (venetian blinds), and (3) household appliances.

OCA believes it is reasonable to exclude from regulation the eight coatings used mainly for commercial and industrial applications. These eight exemptions apply to surfaces which are rarely available to children. Since a minimum exposure of three months is required for production of symptoms of lead poisoning the danger of poisoning due to constant exposure appears to be minimal or nonexistent. Considering that the imposition of a 0.06 percent standard on these coatings

will have a major adverse impact upon their durability, abrasion resistance, and drying ability, the safety benefits resulting from the inclusion of these eight coatings in the regulation appears to be outweighed by the cost to the consumer in the form of deteriorated product quality.

However, the exemptions of metal furniture, venetian blinds, and metal appliances should be eliminated. The surfaces of these products are readily available to children and may contain up to 12 percent lead. Because of the enormous danger of repeated exposure by children to these high quantities of lead, we feel that in this case safety of children should be placed on a higher priority than product quality.

In conclusion, we commend the Commission on its efforts toward comprehensive regulation on this potential hazard to our children. We urge the Commission to adopt Alternative No. 3 as the final regulation, modified so as to include metal furniture, venetian blinds, and metal appliances.

Frank R. Marvin Acting Director

Allan Finkel General Counsel

Susan E. Johnson Attorney-Advisor

THE OFFICE OF CONSUMER AFFAIRS
Department of Health, Education,
and Welfare
Washington, D.C. 20201
(202/245-6933)



CC2 77-39

March 23, 1977



Ms. Sadye E. Dunn Secretary U. S. Consumer Product Safety Commission 1111 - 18th Street, N.W. Washington, D.C. 20207

Re: Determination of Safe Level of Lead in Paint Draft Environmental Impact Statement (42 F.R. 9404)

Dear Ms. Dunn:

Transmitted herewith for filing as a part of the official record in these proceedings are the original and five (5) copies of the written comments of the National Paint and Coatings Association, Inc. on the above-captioned matter.

We thank you for this opportunity to participate, and urge that these views be given careful consideration.

Very truly yours,

John M. Montgomery General Counsel

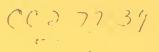
JMM: nb

Enclosures

500 thode Island tvenue, N.W. Vashington, D.C.

elephone 02 462-6272







Ms. Sadye E. Dunn
Secretary
U. S. Consumer Product Safety Commission
1111 - 18th Street, N.W.
Washington, D.C. 20207

Re: Determination of Safe Level of Lead in Paint [Draft Environmental Impact Statement]

Dear Ms. Dunn:

The National Paint and Coatings Association, in response to the Consumer Product Safety Commission's invitation (42 F.R. 9404; February 16, 1977), wishes to take this opportunity to comment on the preliminary draft environmental impact statement on the proposed Commission action to regulate lead-containing paint under the Consumer Product Safety Act (CPSA).

The draft environmental impact statement (EIS), in evaluating various regulatory alternatives, raises a number of important issues such as the regulatory lead

1500 Rhode Island Avenue, N.W. Washington, D.C. 20005

Telephone 202 462-6272

The National Paint & Coatings Association, Inc. (hereinafter referred to as NPCA, and headquartered at 1500 Rhode Island Avenue, N.W., Washington, D.C.), is a voluntary, non-profit industry association originally organized in 1888 and comprising today more than 900 members, who are engaged in the manufacture and distribution of paint, varnish, lacquer, and allied products, or of the materials used in such manufacture. The membership of NPCA collectively produces about 90% of the total dollar volume of paint, varnish, lacquer and allied products produced in the United States.

standard, the transfer of regulation from the Federal Hazardous Substances Act (FHSA) to the CPSA, product exemptions and the regulation of furniture. These matters are of extreme importance to the paint and coatings industry. Therefore, we will focus our comments on these issues, with special attention to product exemptions and regulation of furniture.

## The Lead Standard

The Commission has decided under the Lead-Based Paint Poisoning Prevention Act (LBPPPA), 42 U.S.C. 4801 et seq., that available scientific information is insufficient to establish that a level of lead in paint above 0.06 percent but not over 0.5 percent is safe. In light of this action, regardless of different burdens of proof under the FHSA or CPSA (as opposed to the LBPPPA), it appears that the Commission intends to adopt the 0.06 percent standard for its own regulatory purposes. Therefore, we believe it would be fruitless to belabor the issue. Our only recommendation is that the Commission follow the lead of the United States Congress in providing for an orderly transition. Thus, we urge that the new standard apply only to those products manufactured six months after the Commission's final regulatory decision.

## The Transfer from the FSHA to the CPSA

The Commission's rationale for proposing to regulate lead-based paint and certain other consumer products bearing such paint under the CPSA rather than the FHSA is open to

serious question. Again, we have expressed our views on this subject (see Attachment 1) and will not belabor the issue. Since, however, it appears that the Commission plans to go forward with regulations under the CPSA and then revoke the FHSA regulations, the remainder of our comments will be predicated on that premise.

## Product Exemptions

The exclusion from regulation of those special-purpose coatings, for which a proposal still is pending, is completely justified. The reason these products should be excluded is that they do not pose any unreasonable risk or hazard of lead poisoning to children.

At the outset, we are pleased to note that this position is supported by Dr. J. Julian Chisolm, Jr., a leading authority on lead poisoning, a strong advocate for a 0.06 percent lead standard and the Chairman of the Ad Hoc Committee on Lead in Paint, National Research Council, National Academy of Sciences. Dr. Chisolm, in his comments on the draft environmental impact statement, had this to say about these special-purpose coatings:

On Page II-A-8, there appears a list of special purpose coatings which may be specifically excluded from the banned hazardous substances regulation by the Commission. These special purpose paints and coatings include artists paints, automotive, agricultural and industrial equipment, as well as a number of other special purpose paints. It is also proposed under Alternative No. 3 on Page II-A-9 that metal furniture, metal window dressings and household appliances

be excluded. In my opinion, all of the exclusions proposed under Alternative No. 3 are reasonable and within the intent of LBPPPA. With the possible exception of primer coatings for redwood and cedar and the misuse of these products to cover exterior and interior walls and door frames, they appear to pose little, if any, hazard to young children with pica who are at risk for lead poisoning. (Emphasis supplied).

These views of an expert in the field demonstrate a clear recognition of the risk to be prevented: The risk is the availability of lead-containing dried paint film in areas where it can be consumed by young children. The special-purpose coatings under consideration do not pose such an unreasonable risk.

Therefore, in addition to artists' paints and related materials which have already been exempted<sup>3</sup>, the following categories of special-purpose coatings should be excluded from regulation when the Commission adopts its proposal to declare certain lead-containing paints as banned hazardous substances

Comments of J. Julian Chisolm, Jr., M.D., on Draft Environmental Impact Statement on Lead Content in Paint, March 9, 1977, at 2.

<sup>&</sup>lt;sup>3</sup> In adopting an exemption for artists' paints and related materials under the FHSA (38 F.R. 27514), the Commission recognized these certain elements which justified their action:

<sup>1)</sup> the need for lead in artists' paint;

<sup>2)</sup> the high cost involved, mitigating against general household use; and

<sup>3)</sup> the fact that such paints are not likely to be ingested once applied to the intended surfaces.

These same elements justify exemption of the special-purpose coatings under consideration.

- 5 -

under Section 8 of the Consumer Product Safety Act:

- 1. Artists' paints (already exempt under FHSA).
- 2. Automotive, agricultural, and industrial equipment refinish coatings.
- 3. Industrial (and commercial building) maintenance coatings, including traffic and safety marking coatings.
- 4. Graphic arts coatings (products--in-cluding lettering enamels, poster colors and bulletin colors--marketed solely for application on indoor and outdoor signs, industrial and commercial buildings and vehicles, and similar applications). 4
- 5. Touchup coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicles, and appliances.
- 6. Exterior marine coatings for small craft application.
- 7. Exterior rubber-based roof coatings.
- 8. Exterior primer coatings for wood siding containing extractives (products marketed solely for application on redwood and cedar).
- 9. Catalytic coatings manufactured for use on radio-controlled powered model aircraft.

NPCA's pending proposal<sup>5</sup> for seven of these categories of

This description differs somewhat from that proposed by NPCA in 1972. Since it better identifies the product category of graphic art coatings, we request that hereinafter it be used in place of ours.

This proposal was issued, in part, pursuant to the Federal Food, Drug, and Cosmetic Act (§ 701(e), 52 Stat. 1055, as amended; (21 U.S.C. 371(2)). This evidences an initial decision on the part of the Food and Drug Administration that the NPCA petition was based on reasonable grounds.

special-purpose coatings (Attachment 2) and its petition for exemption of coatings for radio-control powered aircraft provide product descriptions and data which justifies exclusion of these products from regulation. We urge the Commission's careful review of these materials. We also request careful consideration of the following additional factors.

#### 1. The Lack of Unreasonable Risk

What are the key factors which justify the regulation of the lead content in paint products on the grounds that they present an unreasonable risk of injury? In our opinion, they are primarily (1) whether the products contain lead in sufficient quantities to cause lead poisoning if ingested and (2) whether the paint film is available for ingestion. The special-purpose coatings under consideration should not be subject to regulation since, regardless of lead content, they cannot be obtained and ingested by children, the population at risk.

It must be remembered that it is the dried paint film which presents the risk of lead poisoning of children, not the liquid product in its container. And, more specifically, it is only the dried paint film which children<sup>6</sup> can obtain and eat which presents the hazard.

The United States Congress recognized this in its adoption of the Lead-Based Paint Poisoning Prevention Act:

According to noted authorities on lead poisoning, the most critical age for exposure of a child through ingestion of paint and other lead-containing non-food materials is usually 1 to 3 years of age.

Although H. R. 19172 which passed the House prohibits the use of lead-based paints on "any building or structure," the committee feels that where lead-based paint may have unique qualities it should be able to be used so long as the lives of children are not in danger. For that reason ... the committee adopted substitute language relating to the use of lead-based paint on "interior surfaces, porches, and exterior surfaces to which children may be commonly exposed."

The committee feels that the language in the reported bill (amended in the nature of a substitute) is consistent with the desire of the paint industry to utilize the unique qualities of lead-based paint in instances where it is inaccessible to children, yet maintain the intent of the committee that the health and lives of children are not subordinate to those unique qualities."<sup>7</sup>

The Department of Housing and Urban Development (HUD), in implementing the LBPPPA and following through on the legislative intent, identified those areas which pose a risk of lead poisoning to children. In their regulations<sup>8</sup>, "applicable surfaces" of residential structures are defined by HUD as "all interior surfaces and those exterior surfaces, such as stairs, decks, porches, railings, windows and doors, which are readily accessible to children under 7 years of age." And, "health hazard" is defined as "cracking, scaling, peeling, and loose lead-based paint on applicable surfaces."

<sup>&</sup>lt;sup>7</sup> See Sen. Rep. No. 91-1432.

<sup>8 24</sup> CFR Part 35, Subpart A, §35.3.

Thus, the agency instructed by Congress to determine the nature and extent of the problem of lead-based paint poisoning in the United States has identified those areas which pose a risk. The areas of risk are interior surfaces and certain exterior surfaces of residential structures.

The authorities in the field have also recognized that not all lead-containing paint products pose the risk of lead poisoning. Only those used in areas accessible to children in the sense that they can be removed and ingested pose such a hazard. In numerous reports the existing problem has been identified as lead-based paint on accessible residential surfaces and in a deteriorating condition so that it can be removed and ingested. In turn, the problem to be prevented is the future use of lead-based paints on such accessible surfaces.

Dr. Chisolm's opposition to the possible exemption of exterior trade sales paints (raised in the draft EIS) is clear recognition of this:

I interpret this to mean that exterior trade sales paints would include paints sold for the covering of porches, fences, railings, exterior windowsills and frames, exterior doors and frames and siding. These definitely are areas of residences which are accessible to young children and, furthermore, lead paint poisoning has been traced to the consumption of lead-containing paints by young children, from these areas. I would strongly oppose any such exemption.

 $<sup>^{9}</sup>$  NPCA has never sought an exemption for this type of coating.

It certainly would not be in line with the intent of the Lead-Based Paint Poisoning Prevention Act. Although I find no further discussion of this possibility in the document, I would strongly oppose an exemption that applies to paints and coatings that can be applied to the exterior of residences in areas accessible to young children.

By the same token, as noted at the outset, Dr. Chisolm (with the possible exception of primer coatings for redwood and cedar) believes that exemption for the special-purpose coatings under consideration are reasonable because "... They appear to pose little, if any, hazard to young children with pica who are at risk for lead poisoning."

The reason these products pose little or no risk is that their dried paint films are not available for ingestion.

As extensively covered in our pending proposal (Attachment 2), which we urge you to carefully consider, these special-purpose coatings do not pose an unreasonable risk because the dried paint films of such coatings are not now and will not in the future be available for ingestion by children.

Refinish coatings for automobiles, farm and industrial equipment, etc. are not accessible. Even if a child would have access to the dried film in the general sense of being able to reach out and touch it, the dried film is not available in the sense that a child is able to obtain and eat it. The nature of the film, the method of application and, primarily, the hard substrate to which it is applied precludes such removal and ingestion.

<sup>10</sup> See note 2, supra at 1-2.

Moreover, factors such as cost, coating characteristics and difficulties in application militate against any use other than intended. Less expensive, better-suited interior and exterior household paints are available for use on accessible residential surfaces.

Industrial plants, commercial office buildings, metal equipment, structural steel, bridges, and the like are not accessible to children. Neither are safety markings on roads and highways. Nor do road signs, billboards or identification and safety markings of buildings and equipment present surfaces from which dried paint film is available for ingestion.

Therefore, industrial and commercial building maintenance coatings and graphic art coatings do not present the hazard the regulations seek to prevent.

Touch-up coatings for automobiles and other equipment (see category No. 4 of our proposal), while often intended for use by consumers in or around the household, still do not pose any hazard. Again, the hard surfaces to which these coatings are applied do not lend themselves to chewing. Thus, removal and ingestion of the dried paint film by children is not possible. Additionally, these coatings are marketed in small amounts making it costly and inconvenient to use on anything but extremely small areas. Moreover, these coatings dry to a hard, thin film and have excellent adhesion to the substrate.

With respect to exterior marine coatings for small craft application, again the dried paint film does not pose a lead hazard to children since the coated surfaces are not accessible

to them. And, again, these coatings are not likely to be misused in accessible household areas because better-suited and much less-costly household paints are more readily available.

Exterior wood primer coatings for wood containing extractives (products marketed solely for use on redwood or cedar), since used, among other things, on certain residential siding, raises the question as to whether they normally are used on surfaces accessible to children. This apparently accounts for Dr. Chisolm's concern.

As pointed out in our pending proposal, however, the nature of the product and its limited use substantially diminish this product's availability for ingestion even though it may be intentionally applied on residential siding.

This product is a primer for bleeding woods such as red-wood and cedar. Thus, it need only be used once on certain kinds of new wood siding, precluding multi-layer buildup of dried paint film. Further, as pointed out in the Battelle Economic Impact Statement:

... These primers are specially formulated materials that are applied only
over virgin wood, and then after three
days to one week covered with one or two
coats of top coat containing no lead.
The viscosity of these primers is quite
low so that they penetrate into the wood
pores, and hence do not come off with
the flakes which occur later during the
aging process, to any appreciable degree.

Since (1) these coatings represent only a small fraction of the total paint

film (less than 1/3 of the first application), (2) the lead content of a typical primer of this type is about 6 percent or less, based on the dry film solids, (3) the primer is applied only once in the lifetime of a house, (4) the primer is usually applied by professional painters, and (5) the primer almost completely penetrates the pores of the virgin wood, and hence is present in any paint flakes only to a minimal degree, the hazard presented by using such primers under the recommended procedures is felt to be small enough to be considered negligible. 11

In light of the above factors, we believe an exemption for the specialized primers under consideration is justified.

To summarize the question of risk, in our opinion the special-purpose coatings under consideration do not present any unreasonable risk of injury. These products, regardless of lead content, are inaccessible to children in the sense that the dried paint film can be obtained and ingested. Therefore, these products do not present an unreasonable risk of lead poisoning to children and should be excluded from the ban of lead containing paint proposed under Section 8 of the CPSA.

## 2. Benefits and Economic Impact

Under Section 8 of the CPSA if certain findings are made, the Commission may propose and, in accordance with Section 9, issue a rule declaring a consumer product to be a banned hazardous product.

<sup>11</sup> Battelle Draft Research Report on Impact Study of Lead In Paint, September 27, 1976 at 41.

One of the findings the Commission must make, however, is that the product in question presents an unreasonable risk of injury. As noted above, we do not believe such a finding can be supported with respect to the special-purpose coatings being considered for exemption.

Moreover, with respect to these products, there is a feasible consumer product safety standard under the Act which would adequately protect the public even if an unreasonable risk were presented. The labeling requirements proposed (and already in use by most manufacturers) provide adequate protection against any possibility of misuse. 12

Since an action under Section 8 must be in accordance with Section 9, the following provisions of Section 9 must be given due consideration:

Section 9(c)(l): Prior to promulgating a consumer product safety rule, the Commission shall consider, and shall make appropriate findings for inclusion in such rule with respect to--

- (A) The degree and nature of the risk of injury the rule is designed to eliminate or reduce;
- (B) the approximate number of consumer products, or types or classes thereof, subject to such rule;
- (C) the need of the public for the consumer products subject to such rule, and the probable effect of such rule upon the utility, cost, or availability of such products to meet such need; and

As noted herein and in our initial proposal, numerous other factors such as excessive cost, undesirable coating characteristics and difficulty in application act as strong deterrents against misuse, regardless of labeling.

- (D) any means of achieving the objective of the order while minimizing adverse effects on competition or disruption or dislocation of manufacturing and other commercial practices consistent with the public health and safety.
- (2) The Commission shall not promulgate a consumer product safety rule unless it finds (and includes such finding in the rule)--
  - (A) that the rule (including its effective date) is reasonably necessary to eliminate or reduce an unreasonable risk of injury associated with such product;
  - (B) that the promulgation of the rule is in the public interest; and
  - (C) in the case of a rule declaring the product a banned hazardous product, that no feasible consumer product safety standard under this Act would adequately protect the public from the unreasonable risk of injury associated with such product.

    (Pub. L. 92-572, 86 Stat. 1216, Emphasis supplied.)

With respect to Section 9(c)(1) of the Act, we have discussed the degree and nature of the risk of injury the rule is designed to eliminate or reduce. We have pointed out that the special-purpose coatings under consideration do not pose an unreasonable risk of lead poisoning of children which is the risk of injury the rule is designed to eliminate or reduce.

Therefore, in accordance with Section 9(c)(1)(D) of the Act, exempting these products from regulations pertaining to lead content is a "means of achieving the objective of the order while minimizing adverse effects on competition or disruption or dislocation of manufacturing and other commercial practices consistent with the public health and safety." Lack of such adverse effects on both consumers and industry is a valid benefit which must be measured against the degree of risk involved.

Exempting the special-purpose coatings is justified because the degree of risk is minimal and the benefits from the continued use of lead ingredients outweigh the risks.

Further, under Section 9(c)(1)(C) of the CPSA, the Commission is required to consider the need of the public for the consumer products subject to such rule, and the probable effect of such rule upon the utility, cost, or availability of such products to meet such need.

## The Need for the Special-Purpose Coatings

The need of the public for these coatings is clear. They provide essential safety, protective and decorative functions which cannot be replaced.

Certainly highly functional industrial maintenance coatings are needed to protect bridges, structural steel, etc. from rust and corrosion. Traffic marking coatings with adequate service life and visability characteristics are needed for highway safety.

Refinish coatings are necessary to the public to protect and beautify damaged or older motor vehicles and to protect and maintain industrial and farm equipment. Since the original coatings often contain lead pigments, it is essential that touch-up and refinish coatings contain these same pigments if color match is to be achieved and color stability and uniformity are to be maintained upon use and exposure.

Graphic art coatings are needed for traffic signs, industrial safety markings and similar uses. Exterior primers are

needed for new redwood and cedar to prevent unsightly bleeding of tannins. These and many other important functions are provided by the products in question. Thus, there is a clear public need for such products.

There is a clear need for lead ingredients in these products as well, if the products are to continue to meet the needs of the public. These essential benefits of lead ingredients are covered in detail in our attached proposal (Attachment 2) and need not be repeated here. It must be emphasized, however, that the reasons for the need for lead ingredients in these products are still valid. Thus, the utility and availability of such products to meet the needs of the public and provide significant benefits would be severely affected if lead ingredients were prohibited.

#### Cost to Consumers

Since cost to the public must be considered (in accordance with 9(c)(1)(C) of the CPSA), we felt it would be helpful to the Commission if we could provide some specific economic data.

In view of time constraints and because the product line lends itself well to economic analysis, we asked the major factors in the manufacture of automotive refinish coatings to provide us with economic data just for those products.

In preparing this cost data, we began with the premise that the consuming public wished to continue receiving essentially the same quality in automotive refinishing as is presently being provided. Then, we provided the major manufacturers of automotive

refinish products a series of guideline economic impact assumptions, based on our own understanding of industry practice.

The companies involved adjusted these economic assumptions to fit their own situations and provided us calculations as to increased costs of automotive refinishing to consumers if refinish products were denied exemption and, thus, required to meet a 0.06 percent lead standard. These costs include the increased need for overall repainting, as opposed to spot or panel repair, if lead-containing refinish products are unavailable, preventing color matches.

NPCA has totaled the figures provided by the major manufacturers. In so doing, we determined that the cost to the consumer for the first year would be \$3,559,000,000.00. In other words, the initial, first year economic impact to consumers, just from the denial of an exemption for automotive refinish products, would be over 3.5 billion dollars.

NPCA does not have the economic data upon which to predicate a total economic impact figure for all of the special-purpose coatings under consideration. As noted, however, these product categories include essential products in terms of safety and protection as well as decoration. They also include touch-up coatings which allow the consumer to engage in his own repairs, at substantial savings. Lead ingredients play an important role in the performance of each of these special-purpose coatings. In light of these factors, we believe the adverse economic impact to the public from the denial of any of these

exemptions would be extremely significant. Thus, we urge the Commission to give these cost factors very careful consideration.

To summarize our comments with respect to the specialpurpose coatings, we believe a careful analysis will lead to a
conclusion by the Commission that:

- (1) The dried films of the special-purpose coatings

  are unavailable for ingestion by children. There
  fore, a finding cannot be made that they present

  an unreasonable risk of injury, and regulation of

  such products is unnecessary;
- (2) The costs to the public, in terms of loss of product utility (including loss of safety and performance factors) and adverse economic impact, far outweigh the minimal degree of risk involved, if any;
- (3) The exclusion of these special-purpose products is a valid means of achieving the objective of the order under consideration while minimizing unnecessary adverse effects; and
- (4) The granting of these exemptions is in the public interest.

# The Regulation of Furniture

NPCA has submitted comments on the issue of furniture bearing lead-containing paint (see Attachment 3). Since this issue and the issue of appliances bearing lead-containing paint

are raised in the draft environmental impact statement, we wish to supplement our views.

As we pointed out in our original comments, the Commission is given a great deal of latitude by the LBPPPA with respect to the regulation of lead-based paint on furniture. The Commission is directed to "take such steps and impose such conditions as may be necessary or appropriate to prohibit the application of lead-based paint to any toy or furniture article".

(Pub. L. 93-151, §401(c), 90 Stat. 705).

Since toys and other children's articles already are regulated, we believe the only step the Commission need take and the only condition which needs to be imposed is to ensure that toys, children's articles and all children's furniture are included within the scope of regulation. This would ensure that cribs, play pens, high chairs, etc. which are an everyday part of a child's environment are coated with products which meet the standard.

We believe that any lead-based paint hazard associated with other than children's furniture would be traced to a situation in which the furniture article had been repainted by consumers a number of times with lead-based paint and the layers of dried film were in a flaking or peeling condition. Since consumer products used in such repainting must now meet a 0.5 percent lead standard and shortly must meet a 0.06 percent lead standard the cause of this hazard has been eliminated.

NPCA believes that a thorough evaluation of all types of

furniture bearing factory-applied finishes would reveal that, due to the nature of the finish, the application, and the substrate involved, the coating is not available for ingestion by children.

Therefore, before going forward with regulation of furniture, other than children's furniture, we urge the Commission to make a factual determination as to whether any hazard actually exists with respect to factory-applied, lead-containing furniture finishes. In this regard, the Commission may wish to utilize the provisions of Section 5 of the CPSA and conduct research, studies, and investigations on the safety of the consumer products, i.e., furniture, other than children's furniture, bearing factory-applied, lead-containing coatings.

In the alternative, if the Commission decides that some regulation of furniture other than children's furniture is in order, the scope of the regulation should be limited to articles of wood household furniture bearing lead-based paint or other similar surface coating materials. Such a regulation would properly exclude metal furniture of all types such as metal beds, chairs, bookcases and other metal items which could fall within a definition of household furniture.

As we pointed out in our earlier comments, industrial coatings for metal articles normally are cured in an oven for ten to twenty minutes at high temperatures (300 - 400°F). The heat-cured organic coatings, because of the heat-reactive polymers used, provide an extremely hard, smooth, tough, adherent

and durable film. These products undergo rigorous testing
against industry standards for hardness, toughness, adhesion
and crack and chip resistance. Usually, metal articles of
this type have no more than 1 to 2 thousandths of an inch of
coating, so there is little film which could be removed.

Articles of metal furniture, thus, do not pose an unreasonable risk of lead poisoning of children. The extremely hard, factory-applied, dried paint film on such articles cannot be removed and ingested by children. Regardless of the coating application process, the metal substrates of such articles simply do not lend themselves to chewing.

These hard, impenetratable substrates, combined with factory application processes specifically designed to provide thin, highly durable paint films, completely preclude removal and ingestion of the film by children.

Thus, to limit the scope of regulation of furniture bearing lead-based paint and similar surface coating materials to "articles of wood household furniture" would preclude any possible unreasonable risk of lead poisoning while avoiding unnecessary adverse impacts.

Lead-type pigments are important ingredients for articles of metal furniture. Without such ingredients, the cost to the consumers for such articles would increase substantially, while appearance and functional properties would deteriorate.

Moreover, the costs in reformulating existing factoryapplied finishes for metal furniture, as well as the continuing

costs of testing and quality control to ensure that the regulatory standard was being met, would be substantial. Why impose
these substantial economic burdens and injury to performance
when these metal articles do not present an unreasonable risk
of injury? Why require the factory-applied finishes for these
metal articles to meet a lead standard when the dried paint
film is totally inaccessible to children, in the sense that
it cannot be removed and ingested?

Any definition of furniture also should be clarified to exclude articles such as lamps, lighting fixtures, artwork and decorative objects and similar items which do not pose a lead hazard to children. Again, this can be done by limiting the scope of the regulation to wood household furniture.

One example of the type of "articles" which could be considered to be covered, without proper clarification, is mirrors. Lead is an important ingredient in the coatings used for mirror backings. Lead compounds in coatings for mirror backings protect against environmental factors, such as moisture from the atmosphere and moisture or salt from human hands.

Lead-containing mirror backing also has excellent adhesion which is important to the cutting and processing of mirrors.

Thus, the removal from the market of mirror backing containing lead would adversely affect the mirror industry. It will result in a product of inferior quality at higher costs to consumers.

On the other hand, no positive benefits, in terms of elimination of unreasonable risk of injury can be gained by

regulation of such a product. Mirrors simply do not lend themselves to chewing by children. If such chewing were to take place, the hazards associated with ingestion of pieces of glass would be of concern, not the ingestion of the mirror backing.

Therefore, to clarify the regulation and to prevent the unnecessary coverage of items such as mirrors with a lead-containing backing, we again urge the Commission to regulate only those articles of furniture from which it is reasonable to conclude that a child can remove and ingest the dried paint film. As we have indicated, a regulation pertaining only to articles of wood household furniture is more than is necessary to prevent any unreasonable risk in this regard.

## Appliances

Appliances normally are not considered articles of furniture. Indeed, articles of household furniture and household appliances are distinguished and separately identified in dictionaries and in the U. S. Government's "Standard Industrial Classification Manual." Thus, appliances should not fall within the scope of regulations pertaining to furniture. Even if, however, the Commission adopted a definition for furniture broad enough to include appliances, they should be specifically excluded. Coatings which are factory applied to appliances cannot be removed and ingested by children.

Due to the type of substrate and the type of coatings and application (heat-cured, thin coatings which are extremely

hard and durable) these coatings cannot be removed or ingested by biting or chewing by anyone, let alone children.

Again, such coatings do not pose an unreasonable risk of lead poisoning to children because children cannot ingest the film. Lead ingredients, however, make a valuable contribution to factory-applied appliance finishes in terms of product quality and performance. Therefore, appliances should not be subject to regulations pertaining to the lead content of surface coatings.

In summary, just because certain articles of furniture and other items bearing lead-based paint may be accessible to children in a physical sense, they do not pose the hazard of lead poisoning. Such articles only pose such a risk if the dried paint film can be removed and ingested by children.

Therefore, we recommend that the Commission focus any regulation it adopts on only those articles of furniture from which it can reasonably be concluded that a child might be capable of removing and ingesting the dried paint film. A regulation covering only articles of wood household furniture would, in our opinion, more than adequately achieve this objective.

# Jurisdiction

Since the question of jurisdiction has been raised by other comments, NPCA believes it must at least briefly address the subject.

In filing our original petition for exemption for seven categories of special-purpose coatings, we pointed out the following:

The Federal Hazardous Substances Act applies to paint products which are found to be toxic, which are intended or packaged in a form suitable for use in or around a household, and which may cause substantial personal injury or illness as a result of "reasonable foreseeable ingestion by children" (15 U.S.C. 1261(f)(1)(A)). Most paints in liquid form are not considered toxic under this act because the viscosity of the paint product renders the ingestion hazard extremely remote. Only after the paint product has been applied to a surface accessible to children, and then usually only after the film has flaked or chipped, does a hazard arise that children may ingest the lead content.

Thus, this petition is not necessary because of the requirements of the act since the specialty paints, which are the subject of this petition, are neither intended nor likely to be used on surfaces which are reasonably available to children or on surfaces which will enable flaking and chipping of the paint. This petition is required only because the language of §191.9(a)(6)(i) appears to be broader in scope than the language in the statute and broader in scope than is necessary to protect against the lead hazard from the dried paint film. The pertinent portion of the regulation reads as follows: paint or other similar surface-coating material intended, or packaged in a form suitable, for use in or around the household". If this operative language had been limited to surface-coating materials which after application would pose a lead hazard because of reasonably foreseeable ingestion by children, it is clear that the regulation would not apply to these specialty products. This petition for an amendment is submitted, therefore, only to clarify the scope of \$191.9(a)(6)(i) of the regulations. 13

<sup>13</sup> See Attachment 2 at 2-3.

We further pointed out that industrial coatings, such as original finish coatings for automobiles, industrial equipment, etc. were outside the scope of the Act<sup>14</sup> and we discussed similarities between industrial coatings and the special-purpose coatings udner consideration. Thus, a question as to jurisdiction over at least some of these products under the FHSA has already been raised.

Regulation under the Consumer Product Safety Act raises even further jurisdictional questions with respect to certain of the special-purpose coatings. As you are aware, Section 3(a)(1)(A) of the Consumer Product Safety Act excludes from the definition of consumer product "any article which is not customarily produced or distributed for sale to, or use or consumption by, or enjoyment of, a consumer."

Automotive refinish products are customarily used by automotive body shops. They are not marketed primarily for use by retail customers.

Industrial (and commercial building) maintenance coatings, i.e., bridge paints, tank paints, traffic marking paints and similar coatings are not customarily used by consumers. Instead they are used by professional painting contractors. The draft EIS substantiates this: "Industrial maintenance coatings do not

Such industrial products are outside the scope of both the FHSA and CPSA.

constitute a consumer product of any consequence."15

Graphic art coatings<sup>16</sup>, while they may be stocked by some retail outlets, are intended principally for use by professional sign painters. Thus, again they are not customarily used by consumers and again the draft EIS supports this position: "These products [Graphic Arts Coatings] are sold almost exclusively to professionals, and are not generally considered as consumer products.<sup>17</sup>

Since the occasional use of what may be considered to be industrial products by consumers would not be sufficient to bring the product under the Commission's jurisdiction<sup>18</sup>, a valid question exists as to whether the above categories of products are consumer products subject to the Commission's jurisdiction.

A more specific question of jurisdiction relates to automotive refinish products. Under Section 3(a)(1)C of the CPSA, motor vehicles or motor vehicle equipment (as defined by §§102(3) and (4) of the National Traffic and Motor Vehicle Safety Act of 1966) are specifically excluded from the term, "consumer product" as defined by the CPSA.

Draft Environmental Impact Statement on Lead Content In Paint, January 19, 1977 at III-16.

For a more detailed discussion of the substantial doubt as to the Commission's jurisdiction over these coatings, see the Comments of Consumers Paint Factory, Inc. filed in this matter on February 2, 1977.

<sup>17</sup> See note 15, supra.

<sup>18</sup> See H.R. Rep. No. 92-1153; 92nd Cong. 2d Sess., 27 (1972).

The definition of "motor vehicle equipment" in the National Traffic and Motor Vehicle Safety Act is quite broad:

"Motor vehicle equipment" means any system, part, or component of a motor vehicle as originally manufactured or any similar part or component manufactured or sold for replacement or improvement of such system, part, or component or as any accessory, or addition to the motor vehicle, and any device, article, or apparel not a system, part, or component of a motor vehicle (other than medicines, or eyeglasses prescribed by a physician or other duly licensed practitioner), which is manufactured, sold, delivered, offered, or intended for use exclusively to safeguard motor vehicles, drivers, passengers, and other highway users from risk of accident, injury, or death. (Pub. L. 89-563, Title I, \$102(4), Sept. 9, 1966, 80 Stat. 718; emphasis supplied).

Certainly this definition can be held to include automotive refinish products. Thus, an additional serious question exists as to whether the Commission has jurisdiction over automotive refinish products.

Other jurisdiction questions arise in the area of regulation of furniture. What about office or commercial furniture?

Again, there is a serious question as to whether or not these items would fall within the category of articles which are "not customarily produced or distributed for sale to, or use or consumption by, or enjoyment of, a consumer", under Section 3(a)(1)A of the CPSA.

NPCA does not believe that these jurisdictional questions must be resolved under the current proceedings. To us, the more compelling question is this: Does granting exemptions for the special-purpose coatings under consideration and restricting

the scope of the proposed regulations pertaining to furniture, as we have suggested, represent a failure on the part of the Commission to adequately protect the public?

NPCA believes that granting the product exemptions and restricting the scope of furniture regulations is definitely in the public interest. Such action would be a completely effective means for the Commission to accomplish the full intent of the regulatory proceedings (as well as the spirit and intent of the Federal law, LBPPPA) to protect children from lead poisoning due to ingestion of lead-containing paint. At the same time, it would alleviate unnecessary adverse impact on consumers, the paint and coatings industry and certain of our industrial customers. Such action would also prevent the creation of other risks to the public due to failure of these specialized coatings to perform their essential safety and protective functions.

### Conclusion

It appears that the Commission intends to adopt a final regulation under Section 8 of the Consumer Product Safety Act which would declare as banned hazardous products paint and other similar surface-coating materials containing more than the level of lead ultimately to be established as the definition of the term lead-based paint under the LBPPPA.

For the reasons stated herein, such regulation should only apply to those products manufactured six months after the adoption of a final regulation.

Also, for the reasons stated herein, the categories of special-purpose coatings under consideration should be excluded from any such regulation.

It further appears that the final regulation would declare as banned hazardous products toys, other articles intended for use by children, and articles of furniture bearing such paint or other similar surface-coating materials. For the reasons stated herein, the regulation of furniture bearing such paint or other similar surface-coating materials should apply only to children's furniture or, in the alternative, only to articles of wood household furniture.

NPCA appreciates the Commission's careful consideration of our views and stands ready to provide additional information if necessary.

Respectfully submitted,

NATIONAL PAINT & COATINGS ASSOCIATION

By:

John M. Montgomery

General Counsel

By:

Larry L. Thomas

Associate General Counsel

# PROPOSED REGULATION OF LEAD-BASED PAINT AND CERTAIN CONSUMER PRODUCTS BEARING LEAD-BASED PAIND UNDER THE CONSUMER PRODUCT SAFETY ACT AS BANNED HAZARDOUS PRODUCTS

With respect to proposed Part 1145, the Consumer Product Safety Commission has requested written comments on or before September 9, 1976. The National Paint & Coatings Association <sup>1</sup> submits the following views and urges that they be given careful consideration.

As we understand it, the Commission's rationale for proposing to regulate lead-based paint and certain other consumer products bearing such paint under the Consumer Product Safety Act (CPSA) rather than the Federal Hazardous Substances Act (FHSA) is as follows:

- (1) The Commission has decided to consolidate the proceedings under the Lead-Based Paint Poisoning Prevention Act (LBPPPA), the FHSA and CPSA.
- (2) Because the Commission is obligated under the amended LBPPPA to make its determination of a safe level of lead in paint within six months after June 23, 1976, proceeding under the FHSA at the same time is unfeasible because of the time-consuming nature of hearings that would be conducted under section 701 (e) of the Food, Drug and Cosmetic Act (FDCA).
- (3) Pursuant to section 30 (d) of the CPSA, the Commission believes that the public interest requires the regulation of lead-containing paint, and certain other consumer products bearing such paint, under provisions of the CPSA rather than the FHSA.

<sup>&</sup>lt;sup>1</sup> The National Paint & Coatings Association, Inc. (hereinafter referred to as NPCA, and headquartered at 1500 Rhode Island Avenue, N W., Washington, D.C.), is a voluntary, non-profit industry association originally organized in 1888 and comprising today approximately 1,000 members, who are engaged in the manufacture and distribution of paint, varnish, lacquer, and allied products, or of the materials used in such manufacture. The membership of NPCA collectively produces about 90% of the total dollar volume of paint, varnish, lacquer and allied products produced in the United States.

NPCA supports a consolidated proceeding. We believe it is in the best interest of the public, interested parties and the affected industry that the issue of a safe level of lead in residential paint products be responsibly and finally decided in a fair, expeditious manner.

NPCA believes the approach which best serves the public interest is to resolve this issue in a consolidated proceeding which will result in final regulations under the LBPPPA and the FHSA rather than the CPSC. We believe it is entirely feasible to proceed under the FHSA within the time-frame permitted under the LBPPPA and it is in the public interest to do so.

The Commission's position is that before a final regulation can be adopted under FHSA a time-consuming complex evidentiary hearing must be conducted making consolidation impossible. The agency seems to be adopting the view that an evidentiary hearing is always a part of an FHSA proceeding.

This appears to us to be contrary to a correct understanding of FHSA proceedings and contrary to CPSC's own prior interpretations of such proceedings. The Commission's reasoning breaks down in that no evidentiary hearing is required to adopt a rule under FHSA.

FHSA proceedings are two-stage in nature. The first stage is a simple, straight forward informal rule-making process involving no evidentiary hearing. This is clearly spelled out in FHSA Regulations, Part 1500.201 (a):

"(a) The Commission may, upon its own initiative or upon the petition of any interested person, showing reasonable grounds therefor, propose the issuance, amendment, or repeal of any regulation provided for in section 3 (a) or 2 (q) of the Act, declaring particular substances to be hazardous substances or banned hazardous substances. The proposal shall be published in the Federal Register, with an invitation for written comments. As soon as practicable after the comments have been received, the Commission

shall by order act upon such proposal to declare the substance to be a hazardous substance or banned hazardous substance for purposes of the act, or to amend or repeal any regulation previously issued."

This FHSA proceeding is even simpler than a CPSA proceeding which requires oral presentation of views. A clear, totally relevant example that no evidentiary hearing is required under this informal rule-making is that the final adoption of the present FHSA regulations of lead-in-paint did not require even an oral hearing, let alone an evidentiary hearing.

It is only under stage two of the FHSA proceedings that the possibility of an evidentiary hearing arises. This stage is explained in Part 1500.201 (b) of the FHSA regulations:

"(b) Within 30 days after publication of such order, any person who will be adversely affected thereby, if placed in effect, may file objections and a request for a public hearing. The objections shall not be accepted for filing if they fail to establish that the objector will be adversely affected by the regulation, if the objections do not specify with particularity the provisions of the regulation to which objection is taken, or if the objections do not state reasonable grounds.

Reasonable grounds are grounds from which it is reasonable to conclude that facts can be established by reliable evidence at the hearing which will coll for arranging the provisions specified in the objections whenever legally valid objections have been filed, a public hearing on the objections will be held."

This language and the statutory language of the Food, Drug and Cosmetic Act from which it was derived <sup>2</sup> make it clear the FHSA proceedings do not always require an evidentiary hearing. Only when objections and a request for a public hearing are filed does the possibility of an evidentiary hearing arise.

<sup>2</sup> Section 701 (e) (2) of the Food, Drug, and Cosmetic Act, 21 U.S.C. 371 (e).

Further, our understanding of the Commission's interpretation of the FHSA regulatory language cited above is that objections and requests for hearings can be denied if not based on "reasonable grounds." If this is a correct interpretation then the Commission decides whether an evidentiary hearing is in order or not; it is not an automatic requirement under FHSA proceedings.

Thus, to consolidate the LBPPPA proceedings with FHSA rather than CPSA, the Commission could:

- (1) Repeal that part of the current FHSA regulations dealing with the 0.06% lead level. Such repeal would have no practical effect on the existing FHSA lead standard since the 0.06% level is not in effect but would properly most long-standing objections which have stayed that standard.
- (2) Propose a new FHSA regulation which would provide that whatever lead standard is established under the Lead-Based Paint Poisoning Prevention.

  Act will be considered the highest permissible level of lead in paint and other articles bearing such paint regulated under the Federal Hazardous.

  Substances Act.

A new FHSA proposal could easily be consolidated with the LBPPPA proceedings.

As already noted, the adoption of a FHSA rule only requires an informal rule-making proceeding. By placing a notice in the Federal Register, conducting a public hearing and allowing for submission of written comments, the Commission will have even exceeded the minimum requirements necessary to adopt an FHSA regulation.

Obviously, it can be argued that once these proceedings are consolidated and a determination is made which sets a standard under the LBPPPA and the FHSA, the standard

may become effective under the LBPPPA while the FHSA standard is stayed by new objections and a request for a hearing. But this possibility does not interfere with a consolidated proceeding and a final determination. Instead it is a logical, worthwhile extension of it.

If objections are filed, under the Commission's interpretation of FHSA regulations, an evidentiary hearing can be denied if not based on reasonable grounds. Reasonable grounds, as defined in the above FHSA regulations, are "grounds from which it is reasonable to conclude that facts can be established by reliable evidence at the hearing which will call for changing the provisions specified in the objections."

If reasonable grounds are established by legally valid objections, then it certainly is in the public interest to hold such a hearing, even if it means the FHSA standard is stayed while the LBPPPA remains in effect. While uniformity of standards under federal laws is in the public interest, the overriding public interest is to ensure that whatever standard is adopted is justified and supported by reliable evidence.

An evidentiary hearing, if justified, would allow adversely affected parties a further opportunity to resolve the issue at the administrative level rather than through litigation.

Appellate courts, in light of their already over-crowded dockets, are especially interested in resolution of such issues at the administrative level.

Unlike the FHSA, the CPSA does not provide for further administrative proceedings if an actual, valid controversy exists. Instead, once a regulation is adopted under the CPSA, any further challenge must be taken to the courts.

Surely, it is not the Commission's contention that further agency review of a regulation which has been challenged by "reasonable grounds" is not in the public interest. Such a position cannot be supported, especially when, under the Commission's interpretation of the

regulations, it decides what are "reasonable grounds" and can either grant or deny a public hearing depending on this decision.

In summary, a consolidated proceeding can be held under the LBPPPA and the FHSA since an evidentiary hearing is not initially required. Further, this would not deter interested parties from participating to the extent possible under the LBPPPA and the CPSA. In fact, it would allow added public participation, by allowing adversely affected parties to participate in an additional evidentiary hearing if the Commission deems it in order.

Therefore, we strongly recommend that the Commission continue to regulate lead-based paint and certain other consumer products bearing such paint under the FHSA and not transfer the matter to CPSA. The LBPPPA and FHSA proceedings can be consolidated without the interference of an evidentiary hearing. Such a hearing, if held at all, is held subsequent to initial FHSA rule-making procedures. Also, in light of the Commission's own interpretation of FHSA proceedings, objections and a request for an evidentiary hearing must be based on "reasonable grounds" if they are to be granted. If "reasonable grounds" exist and the Commission is made aware of them by legally valid objections then an evidentiary hearing is decidedly in the public interest.

Accordingly, it is not in the public interest to regulate certain lead-containing paint and certain other consumer products bearing such paint, under provisions of the CPSA rather than the FHSA. In fact just the opposite.

Any risks of injury associated with point products have been traditionally eliminated or reduced to a sufficient extent by action under the Federal Hazordous Substances Act.

Through no small effort on the port of NPCA, the paint and coatings industry has been continually informed of FHSA requirements since the act<sup>1</sup>s enactment in 1960. Our extensive labeling guide, in large measure based on requirements of the FHSA, is clear evidence of this.

Moreover, as the Commission is aware, there is already an FHSA standard for lead-in-paint and toys and children's articles bearing such paint. The paint industry and other involved industries have generally developed an understanding of and learned to comply with the FHSA lead-in-paint rules, even though some provisions, such as repurchase of banned hazardous substances, are more stringent than under the CPSA. It is certainly not in the public interest to disrupt this understanding which is essential to compliance. This is especially true when the possibility exists that the lead-in-point standard will be lowered, presenting the industry with a new and significant burden with which it must cope. If such is to be the case, why further confuse the issue by unnecessarily transferring regulation to a new, less understood law?

Additionally, there is still pending before the Commission a petition to exempt certain products from the FHSA lead paint regulations. We recognize that if a transfer is made to CPSA, such petitions will continue their present status until ruled on, except they will be pending under the CPSC rather than the FHSA.

These petitions, however, are couched in terms which apply to the provisions of FHSA.

If the transfer is mode to CPSC, does this mean that these petitions must be revised and refiled to correspond to the provisions of the CPSA? This seems to us to be a waste of time and effort since the proceedings under the FHSA can be consolidated with the LBPPPA proceedings.

Therefore, NPCA believes that the public interest can best be served by continuing regulation under FHSA and that the public interest does not require the regulation of lead-containing paint and certain other consumer products bearing such paint under provisions of the CPSA rather than the FHSA. Thus, section 30 (d) of the CPSA (15 U.S.C. 2079 (d)), as amended by the Consumer Product Safety Commission Improvements Act of 1976 (Pub. L.

94-284; 90 Stat. 510), does not provide authority for the Commission to, in this instance, proceed under the CPSA rather than the FHSA.

We are confident that the Commission will give full and careful consideration to these

Thank you.

11/31/11/11/11/11 Attachment 2 BAINT & (See F.R. proposal and petition to COATINGS exempt coatings marketed solely for use on radio-control powered aircraft 1930CIATION attached hereto) CC277-39



October 24, 1972

Commissioner Food and Drug Administration U.S. Department of Health, Education and Welfare Washington, D. C. 20204

Dear Sir:

The undersigned National Paint and Coatings Association on behalf of its members, which manufacture and market certain specialty paints in which lead is a necessary component, submits this petition pursuant to Section 701(e) (1) (B) of the Federal Food, Drug and Cosmetic Act with respect to the amendment of the FDA regulation of March 11, 1972, classifying certain paints as banned hazardous substances, issued under Sections 2(q) (1) (B) and 3 (a) (2) of the Federal Hazardous Substances Act. The petition also is submitted in response to and consistent with the invitation in the aforementioned regulation (of March 11, 1972) to consider petitions requesting amendment of this regulation with respect to products intended for particular uses, of which lead is a necessary component.

Attached hereto, in quintuplicate and constituting a part of this petition, are the following

- (A) Proposed Amendment.
- (B) Statement of the grounds upon which the petitioner relies for the amendment of the regulation.

This petition seeks the amendment of Section 191.9(a) (6) (i) of Part 191 of Title 21 of the Code of Federal Regulations.

Very truly yours,

National Paint and Coatings Association, Inc. (Petitioner)

Per John M. Montgomery, General Counsel

Mail address 1500 Rhode Island Avenue, N.W. Washington, D. C. 20005

edent
PH J BAUDHUIN Rockford President BRETHEN JN Wyandolle

cultve Vice President ERT A. ROLAND, Washington

SARSEN Piltshurgh

AN W GATES Washington

Id Secretary

EB N ELLIOTT Washington

w England
SEPH S W PARKER, Malden

S AROWN lenewende

NERT A TAPPENDONE Chicago

uthern IGH H. MAYRI HRY, Brunswich, Go alloto withfill Denver

Palern W KENNEDY Les Angeles

hode Island ashington, D.C.

elephone 02 462-6272

# (A) Proposed Amendment:

§ 191.9:

- (a)  $x \times x$
- (6) (i) (c) The provisions of this Section (i) do not apply to:
  - 1. Automotive, agricultural, and industrial equipment refinish coatings.
  - 2. Industrial (and commercial building) maintenance coatings, including traffic and safety marking coatings.
  - 3. Graphic art coatings (products marketed solely for application on billboards, road signs and similar uses, and for identification marking in industrial buildings.)
  - 4. Touch-up coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicles, and appliances.
  - 5. Exterior marine coatings for small craft application.
  - 6. Exterior rubber-based roof coatings.
  - 7. Exterior primer coatings for wood siding containing extractives (products marketed solely for application on redwood and cedar.)

Provided, that these products bear on the main panel of their label, in addition to any labeling that may be required under the Act or regulations promulgated pursuant thereto, the signal word "WARNING" and the following statement: "CONTAINS LEAD. DRIED FILM OF THIS PAINT MAY BE HARMFUL IF EATEN OR CHEWED. See other cautions on (side or back) panel." These products shall also bear on their label the following additional statement or its practical equivalent:

"Do not apply on toys and other children's articles, furniture, or interior surfaces of any dwelling or facility which may be occupied or used by children.

Do not apply on those exterior surfaces of dwelling units, such as window sills, porches, stairs, or railings, to which children may be commonly exposed.

Keep out of reach of children."

The placement, conspicuousness and contrast of the above labeling shall be in accordance with the requirements of 21 C.F.R. 191.101.

# B. Statement of the Grounds Upon Which Petitioner Religs for the Amendment of the Regulation

On March 11, 1972, the Food and Drug Administration published an order in the Federal Register (37 F.R. 5229) under Section 2(q) (1) (B) of the Federal Hazardous Substances Act which, in part, declared any paints or other similar surface coating materials intended, or packaged in a form suitable for use in or around the household, to be banned hazardous substances if: (1) shipped in interstate commerce between December 31, 1972 and December 31, 1973 and (2) containing lead compounds of which the lead content is in excess of 0.5 percent of the total weight of the contained solids or dried paint film. On August 10, 1972, this portion of the order was confirmed as effective; that portion of the order pertaining to a 0.06 percent lead level remained under consideration by the Agency.

The Federal Hazardous Substances Act applies to paint products which are found to be toxic, which are intended or packaged in a form suitable for use in or around a household and which may cause substantial personal injury or illness as a result of "reasonably foreseeable ingestion by children" 15 U.S.C. § 1261 (f) (1) (A). Most paints in liquid form are not considered toxic under this Act because the viscosity of the paint product renders the ingestion hazard extremely remote.

Only after the paint product has been applied to a surface accessible to children, and then usually only after the film has flaked or chipped, does a hazard arise that children may ingest the lead content.

Thus, this petition is not necessary because of the requirements of the Act since the specialty paints, which are the subject of this petition, are neither intended nor likely to be used on surfaces which are reasonably available to children or on surfaces which will enable flaking and chipping of the paint. This petition is required only because the language of 191.9 (a) (b) (i) appears to be

broader in scope than the language in the statute and broader in scope than is necessary to protect against the lead hazard from the dried paint film. The pertinent portion of the regulation reads as follows:

Any paint or other similar surface coating material intended, or packaged in a form suitable, for use in or around the household . . . .

If this operative language had been limited to surface coating materials, which after application would pose a lead hazard because of reasonably foreseeable ingestion by children, it is clear that the regulation would not apply to these specialty products. This petition for an amendment is submitted, therefore, only to clarify the scope of Section 191.9 (a) (b) (i) of the regulations.

The Definitions and Procedural and Interpretative Regulations, under FHSA (21 C.F.R.

Part 191.1) specify that the Act covers those products that under customary or reasonably foresee—
able conditions of storage or use may be brought into or around a house, apartment or other place
people dwell, including a garage, carport, barn or storage shed. The same regulations expressly
state that the Act does not cover industrial supplies that might be taken into a home by a servicemar.
The interpretations specifically provide that a product labeled as and marketed solely for industrial
use does not become subject to the Act simply because an industrial worker could possibly misappropriationally for his own use.

Thus, this interpretative regulation leaves no doubt that industrial coatings, such as original finish coatings for automobiles, industrial equipment and farm and garden equipment are outside the scope of the Act and therefore remain unaffected by the proposed tolerances. The specialized coating products which are the subject of this Petition are similar to the industrial or factory-applied coatings in many respects. They are intended primarily for application to non-household surfaces, usually by professional painters, and they are not intended or suitable for use on surfaces accessible

to children which would create a hazard. The March 11 regulation appears to cover these specialized paints solely because they may at times be found in or around the household in packaged form and not because of any finding that they pose a lead hazard to children.

Congress, in enacting the Federal Hazardous Substances Act, contemplated the dangers offered by a product or article in its liquid state and in its packaged form and thus designed the Act to regulate all products "intended or packaged in a form suitable for use in or around the household." Implicit in the quoted language is the assumption that the particular hazard from a product is posed simply because that product is present in the household in packaged form. While this is true of a substance which presents a hazard in its liquid state as, for example, the flammability hazard of certain liquid paints, this is not true of the lead ingestion hazard from paints. The particular hazard posed by lead content in paint does not occur from the liquid paint in the package but, instead the hazard occurs solely from the dried paint film if ingested by children.

The best information available indicates that children who are disposed to chew paint chips confine their activity primarily to interior surfaces in the house and, perhaps, infrequently to an accessible exterior surface. Children usually are attracted by flakes from old, chipped paint film rather than newly-coated surfaces, and by toys or other articles which they may place in their mouths. This is due in large part to the limited physical abilities of the young children suffering from "pica," the habit of ingesting non-food items.

As pointed out in comments to the subject regulation, submitted by Dr. Barry King and Dr. Julian Chisholm (noted authorities on lead poisoning), the most critical age for exposure of a child through ingestion of paint, putty and other lead-containing non-food materials is usually one to three years of age. In view of both the restricted mobility and physical limitations of children in this age bracket, they neither have access to, nor are capable of chewing or ingesting, paint chips from surfactor which the products for which exemptions are herein requested are applied. In fact, we are not away of any documented case where a child has attempted to ingest the paint film on automobiles, farm and garden implements, etc.

The American Academy of Pediatrics, in its November 30, 1971 memorandum to the Food and Drug Administration, appears to confirm this:

The American Academy of Pediatrics endorses the principle contained in the petition filed with the Commissioner that paints containing more than minute traces of lead be declared as banned hazardous substances, if intended for use on children's products or interior surfaces. (Emphasis supplied)

Further, the Senate Committee Report on the Lead-Based Paint Poisoning Prevention Act Amendments of 1972 refers specifically to coatings "intended for interior residential surfaces" (S. Rep. No. 92-85 92d Cong., 2d Sess. (1972)).

Similarly, under the "Lead-Based Paint Poisoning Prevention Act (P.L. 91-695) the Secretary of Housing and Urban Development, in consultation with the Secretary of Health, Education, and Welfar was instructed to develop and carry out a demonstration and research program "to determine the nature and extent of the problem of lead-based paint poisoning in the United States, particularly in urban areas, and the methods by which lead-based paint can most effectively be removed from interior surfaces, porches, and exterior surfaces to which children may be commonly exposed, of residential housing."

Acting under this authority, the Secretary of HUD has determined that the existing conditions that pose a lead paint hazard to children are those surfaces reasonably available to children that present peeling or flaking paint. This has been recently confirmed by the agency by a publication in the October 21, 1972 issue of the Federal Register (at Page-22732) entitled "Prohibition of Use of Lead-Based Paint And Elimination of Lead-Based Paint Hazard." This revises pertinent parts of the Code of Federal Regulations already promulgated under authority of the Lead-Based Paint Poisoning Prevention Act. In this revision, with respect to the use of and elimination of existing

hazards caused by lead-based paint, the Secretary of HUD defines "applicable surfaces" as all interior surfaces and those exterior surfaces, such as stairs, decks, porches, railings, window and doors, which are readily accessible to children under 7 years of age." Further, "Health Hazard", with respect to lead-based paint, is defined to mean "crackling, (sic) scaling, peeling and loose lead-based paint on applicable surfaces."

Since the prohibition against use of lead-based paint under this revision extends only to use on "applicable surfaces of any residential structure", clearly then these are the only surfaces found by this agency to pose a lead hazard to children. There is no indication by HUD that the surfaces to which the products under consideration are applied present either an existing or future lead poisoning hazard to children.

It is clear from the foregoing that the hazard sought to be prevented by lead tolerances established in Section 191.9 (a) (b) is lead ingestion by children who tend to chew dried paint film on interior and exterior household surfaces accessible to these children, and on toys or other articles intended for use by these children. The regulation is not intended to nor should it reasonably apply to the specialized paints under consideration since, through customary or reasonably foreseeable conditions of use, they will not cause a lead hazard for pica children, even though they are packaged in a form suitable for use in or around the household, and thus, incidentally may meet the definitional test of Section 191.1 (c), namely, that

Under any reasonable condition of purchase, storage or use the articles may be found in or around a dwelling ....

Thus, petitioners believe these products should not be subject to the provisions of the regulation.

Unlike interior household paints or even exterior paints for household application which could conceivably be substituted for interior use or applied on an exterior surface accessible to children, these specialized products are never marketed for such application. They are neither intended, designed nor suitable for use in areas accessible to children. These products are limited in purpose and, since they are not general household products, are thus purchased infrequently and never stored around the household in any significant quantity. Furthermore, most of these products are intended for the professional consumer.

The precautionary label proposed in this Petition adds an extra measure of protection against any conceivable risk from its lead content due to misuse. The possibility of misusing these products, even without the precautionary label is, however, very remote. The garish color and rough texture of an industrial maintenance coating such as a red-lead primer, in which lead is an important protective material, makes it exceedingly unlikely that anyone would use it on interior household surfaces or other surfaces accessible to children. Other specialty products, such as automobile refinishes, are generally too expensive to be feasible for use on such surfaces. Others such as touch-up coatings in aerosol containers are packaged in quantities too small for practical use on household surfaces. Additional significant factors militating against misuse of these products are explained in the following discussions of the individual products along with an explanation of why lead is a necessary component in these coatings.

## DISCUSSION OF SPECIAL PURPOSE COATINGS

# 1. Automotive, agricultural, and industrial equipment refinish coatings

Automotive, agricultural and industrial equipment refinish coatings are designed for use by automobile repair shops or agricultural or industrial equipment dealers for the refinish of automobiles, trucks, agricultural, and industrial machinery. These refinish coatings are marketed through automoti warehouse distributors to automotive parts jobbers, and then to automotive body shops. Agricultural and industrial equipment coatings are sold by equipment manufacturers and subsidiaries to equipment dealers.

Although these refinish coatings are intended for use by automotive body shops or farm and industrial equipment dealers and are not marketed primarily for retail customers, some of these companies have a secondary retail trade. Such retail customers use these coatings to refinish automobiles, agricultural equipment, and industrial machinery. This refinishing may occur in or about a garage, barn or shed.

These coatings are usually high-gloss and are customarily applied by spray equipment. Lead is an essential ingredient in many of these coatings for three reasons. First, it is a catalytic drier, necessary to speed the oxidation process and thereby, prevent dirt or dust from becoming embedded in the film. Second, lead-containing pigments are necessary to match original equipment colors and to prevent a displeasing patchwork effect in coloring which otherwise would appear after a short time due to color chalking and fading. Finally, lead provides the essential resistance to weathering, heat and other environmental conditions to which automobiles, agricultural and industrial equipment are peculiarly exposed.

When used for the intended purpose, there exists no health hazard to children. Indeed, the only difference between the original factory-applied finish (which is not regulated by the Act unless applied to any toy or other articles intended for use by children,) and the refinish product is that a

can of the latter may find its way into or near the home. The hazard exists, however, not from the liquid in the container but only from the dried film and then only if the film can be ingested by children. It is not reasonably foreseeable that a child would chew on the paint because of the hard substrate to which the paint is applied.

Because of the nature of these refinishing products and their labeling, it is not reasonably foreseeable that they would be used for other than their intended purpose. There are many reasons for this:

- 1. Spray application, usually with high-pressure sprayers, is recommended for all of these products, and satisfactory results are not obtained with a brush or roller-
- 2. The high gloss colors found in most of these coatings are not suitable for surfaces in the home;
- 3. At the retail level, automotive refinishes are roughly twice as expensive as household enamels and paints, and thus it is exceedingly unlikely that consumers would purchase automotive refinish coatings for use on either an interior or exterior household surface since cheaper, better-suited products are more readily available. Further, such costs preclude purchasing more than is actually needed to refinish an automobile;
- 4. These refinishes, in contrast to general purpose household enamels and paints, often require careful preparation of the metal surface, including grinding, etching, and priming in order to obtain proper adhesion; and
- 5. The proposed warning label would provide additional protection by indicating to the purchaser that such coatings should not be applied on any surface accessible to children.

2. Industrial (and commercial building) maintenance coatings, including traffic and safety markings coatings

This category includes a variety of coatings sold for maintenance of plant and equipment, commercial buildings, structural steel such as bridges, or for safety markings or pavement markings in streets or parking lots. Lead pigment, such as in the commonly used red lead primer, is an important ingredient in these coatings, principally because it resists corrosion. Lead pigments also achieve the brilliant opaque and durable colors required for safety markings on pavements and industrial areas. There are no substitutes for the lead colors that will adequately perform the same purposes. Organic compounds are weaker in tinting strength, are less durable to weathering and have a tendency to bleed when overpainted.

Those products are intended for uses which pose no health hazard to children. Industrial plants, commercial office buildings, metal equipment, structural steel, bridges, and the like are not accessible to children. Additionally, the Congress, after hearings has recognized that such uses are not hazardous. In enacting the Lead-Based Paint Poisoning Prevention Act of 1971 (P.L. 91-695) Congress eliminated the language "any building or structure," and substituted "interior surfaces, porches, and exterior surfaces to which children may be commonly exposed" in order to exclude industrial and commercial building maintenance use (S. Rep. No. 91-1432, 91st Cong., 2d Sess. 4-5 (1970)).

Again it is not reasonably foreseeable that industrial maintenance coatings would be misused and applied to a household surface accessible to children. Large volume users purchase these products directly from manufacturers, and these products are generally unavailable for use around the household. Some retail outlets may stock and sell certain lines of these coatings in limited volume to smaller industrial accounts. Such industrial maintenance coatings normally are labeled

"Intended for professional use only and not for retail sale." In addition, they will bear the lead warning label required by the proposed amendment. Thus, the possibility of household use is virtually eliminated.

3. <u>Graphic art coatings</u> (Products marketed solely for application on billboards, road signs and similar uses, and for identification marking of industrial buildings.)

These paints or coatings, applied free hand or by hand using a stencil or similar technique, are used to present a graphic image or convey a message. On the basis of intended use and because of a general lack of access by household consumers and children, to either the coating or coated surface, graphic arts coatings should be exluded from the regulation.

While these coatings may be stocked by some dealers, they are intended principally for use by professional sign painters for the application of colors to billboards, billboard structures, road signs and similar items and for identification markings of industrial buildings and the equipment installed therein. Most of these coatings are used only under specific shop conditions for application to plastic and metal surfaces, such as illuminated signs advertising particular businesses (e.g., service stations) or for road-directional markers.

The need for such contrasting colors is mandatory for these types of identification. Existing tech nology knows of no substitute materials for lead which will provide the brilliance, color permanence and film durability necessary for extended periods of service, particularly under the temperature, sunlight and humidity conditions of outdoor exposure. Furthermore, for many of these uses, such as application to road signs, these coatings are baked on. No acceptable non-leaded colorants, which can withstand such baking, are presently available.

4. Touch-up coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicles, and applicances

These coatings are packages in small containers or in aerosol containers, for use by the consumer in making minor surface repairs to his automobile, household appliance, or other mechanical equipment which may be found in the vicinity of his home. While intended primarily for use in and around the household, they are neither intended nor suitable for application to large surface areas accessible to children. Second, the hard metal surface of the vehicles, appliances, or other equipment on which these coatings are applied, do not lend themselves to chewing by children. Third, the very thin, hard coating film on such surfaces cannot be removed and ingested by chewing.

These coatings are packaged and marketed in small quantities, discouraging their use on anything except an extremely small area. As with automotive refinish coatings, they generally are not suited for use other than as intended. Furthermore, to insure against any misuse of this product, each container will carry the required labeling, warning of the lead content and restricting the use of the product.

# 5. Exterior marine coatings for small craft application

The bulk of marine coatings are marketed for industrial use only, and are sold in containers not suitable for use in and around the household and, therefore, are outside the coverage of the Act.

Yet, marine coatings also are sold in significant volume at retail for use by consumers in coating small craft, and these coatings could be found in or around the household.

Lead is an essential ingredient for these coatings, primarily for the same reasons it is needed in industrial maintenance. Lead is a necessary component for corrosion control; there are no satisfactor substitutes. As with automotive refinish coatings, lead is needed in marine coatings to provide resistance to weathering and other environmental conditions.

When used for their intended purpose, marine coatings do not pose a lead hazard to children since the coated surfaces are not accessible to them. Furthermore, it is not reasonably foreseeable that such coatings would be misused for other purposes in or around a household, because other, better suited, less costly coatings are more readily available. Finally, the proposed warning label would clearly indicate to the consumer that the coating should not be applied on any areas accessible to children.

# 6. Exterior rubber-based roof coatings

These coatings are unique, in that they are rubber-based as opposed to the types of materials used in other coatings. Lead oxides are the only known materials available for curing the liquid coatings when applied to surfaces such as roofs where waterproofing is essential. Oxides of no other metals exert any influence on the cure of these rubberized coatings. In addition, lead oxides are required for improved water resistance. These surfaces are obviously not accessible to children and, thus, the intended or reasonably foreseeable use will not create a health hazard for children.

7. Exterior wood primer coatings for wood siding containing extractives (products marketed solely for use on redwood or cedar.)

Lumber used for fabrication of siding materials may at times be cedar or redwood, each of which contains water-soluble materials which can be leached by moisture and deposited at or near the paint surface. These staining chemicals can have increased solubility in the high pH of emulsion paints, and can accentuate the development of unsightly stains on the paint film. A lead compound primer is used when the bare substrate is cedar or redwood, in order to insolubilize the stains before they reach the topcoat. Continued manufacture and sale of exterior staining wood primers of this type, which contains lead, is necessary for this limited purpose.

We do not believe that the use of this product poses a reasonably foreseeable lead hazard to children for each of the following reasons:

(I) A lead-containing primer need only be used once, and thus, there is no buildup of layers of lead-containing paint, which is recognized as a primary cause of lead poisoning:

- (2) Exterior house siding is not readily accessible to children in the sense that porch railings and ornamental surfaces are accessible;
- (3) Staining, as distinguished from non-staining, woods are not widely used for siding; and
- (4) Some of the primer penetrates the wood substrate and thus, should the coating peel, little, if any, of the primer peels with it.

## SUMMARY

While a number of these special purpose coatings may be found in or near the household in packaged form, no lead hazard to children arises either before or after they are applied to the surfaces for which they are intended. Only "household" paints that are intended to be applied to surfaces accessible to children can pose the lead hazard sought to be prevented by the regulation in question.

We are not aware of any data, including reports in medical literature or human experience, which indicate that children have ingested dried paint films from the type of surfaces on which the products described herein are applied, nor is it reasonably foreseeable that such ingestion would occur. Additionally, considering the inaccessibility of the surfaces to which these paint films are applied and/or the hardness of the film or substrate to which they are applied, ingestion of these products after application is not reasonably foreseeable. Finally, and as previously pointed out, the likelihood of misuse of these products is exceedingly remote.

Accordingly, this petition is submitted in the interest of establishing -- for both the consumer and the industry -- clarity and certainty with respect to the scope of the subject regulation. This would also avoid the possibility of unwarranted regulatory action resulting from a lack of such clarity and certainty, and provide a sound enforcement basis for labeling these classes of products.

## PROCEDURE

Since this petition is filed prior to the implementation (December 31,1972) of the lead order, it is requested that the publication of this petition have the effect of suspending the effective date of the order, pending review of comments and promulgation of a final order in this matter, only as it applies to those paints and similar surface coating materials which petitioners submit should not be subject to the order. Without such a suspension, the manufacture and distribution of the products would be totally disrupted. Manufacturers have not known and still do not know whether to continue or discontinue the marketing of these specialized coatings since there is a substantial unresolved question of their status under the lead order. Additionally, until this question is finally resolved by a final order, customers of these manufacturers — such as distributors or users having a secondary retail trade — cannot, with confidence, continue to purchase such products. This is because it may be necessary for them to introduce the products into interstate commerce subsequent to the December 31,1972 implementation date. This petition is not intended to affect the implementation date of the lead standards as they apply to other paints and surface coating materials.

An additional factor for consideration relates to the labeling required by the proposed amendment. Until the Commissioner determines by regulations the acceptable or desirable label statements
for the special-purpose coatings under consideration, manufacturers cannot with confidence label
or relabel new production. It will be necessary, therefore, to consider lead time for an implementation date for such labeling as may be required.

(a) Amounts deposited pursuant to subdivisions (i), (ii), and (iii) of this subparagraph (including any voluntary deposits made pursuant to paragraph (b) (3) of this section), and

(b) Amounts paid pursuant to paragraph (a) (1) of § 1.1461-3, for such calendar year.

the withholding agent shall deposit the balance of tax due for such year with a Federal Reserve bank or authorized commercial bank on or before the 15th day of the third month following the

close of the calendar year.

(v) Transitional rules. Notwithstanding the provisions of paragraph (a) (1) of § 1.1461-3 and of subdivisions (i) and (ii) of this subparagraph, the aggregate amount of tax required to be withheld under chapter 3 of the Code by any withholding agent after December 31, 1966, and before June 1, 1967, shall be deposited with a Federal Reserve bank on or before June 22, 1967. For the purpose of paragraph (b) (2) of this section any amount deposited in accordance with the requirement of this subparagraph shall be considered as if it were deposited with respect to amounts withheld during the calendar quarter beginning April 1, 1967.

(3) Cross reference. For rules relating to the adjustment of deposits, see § 1.1461-4(b) and § 1.6414-1. For rules requiring payment of any undeposited

tax, see § X.1461-3.

[FR/Doc.72-20913 Filed 12-4-72;8:53 am]

# DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

[ 7 CFR Part 905 ]

ORANGES, GRAPERRUIT, TANGER-INES, AND TANGEROS GROWN IN FLORIDA

Proposed Handling Limitations

Consideration is being given to the following provosal submitted by the committees, established under the marketing agreement, as amended, and Ordel No. 905, as amended (7 CFR Part 905), regulating the handling of oranges, graperuit tangerines, and tangelos grown in Florida, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1037, as amended (7 U.S.C. 601-674). The proposal would extend current grade and size limitations, for the period January 1, 1973, through September 30, 1973, applicable to oranges, including Navel, Temple, and Murcott Honey oranges (but not includfollowing proposal submitted by the com-Murcoth Honey oranges (but not including Valencia, Lye Gim Gong, and similar late maturing oranges of the Valencia type), handled between the production area and my point outside thereof in the continental United States, canada, or Mexico.

The proposed extension of the period of regulation of certain varieties of oranges is designed to continue in effect the current quality and size requirements for such fruits consistent with (1) the available supply and the demand for such fruits; and (2) improving returns to

produc icy of the act.

The proposal is as follows:

Order. In \$ 905.545 (Orange Regulation 71; 37 F.R. 21799, 24432, 25036) the provisions of paragraph (a) preceding subparagraph (1) thereof are amended to read as follows:

§ 905.515 Orange Regulation 7.

(a) During the period January 1, 1973, through September 30, 1973, no handler shall ship between the production area and any point outside thereof in the con-tinental United States, Canada, or Mexico.

All persons who desire to submit written data, views, or arguments in connection with the aforesaid proposal shall file the same, in quadruplicate, with the Hearing Clerk, U.S. Department of Agri-Hearing Clerk, U.S. Department of Agriculture, Room 112, Administration Building, Washington, D.C. 20250, not later than the 10th day after publication of the notice in the Federal Register. All written submissions made pursuant to this notice will be made available for public inspection at the office of the Hearing Clerk during regular business hours (7 CFR) 27(0)). hours (7 CFR/1.27(b))

Dated: November 30, 1972.

PAUL A. NICHOLSON, Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

[FR Doc.72-20826 Filed 12-4-72;8:48 am]

# DEPARTMENT OF HEALTH EDUCATION. AND WELFARE

Food and Drug Administration [21 CFR Part 191]

BANNED HAZARDOUS SUBSTANCES

Proposed Exemption of Certain Lead-Containing Paints and Other Similar Surface-Coating Materials

The Commissioner of Food and Drugs has received a petition from the National Paint and Coating Association, 1500 Rhode Island Avenue NW., Washington, DC 20005, submitted pursuant to section 701(e)(1)(B) of the Federal Food, Drug, and Cosmetic Act, proposing an amendment to a regulation (21 CFR 191.9(a) (6)(i)) promulgated under section 2(q) (1) (B) of the Federal Hazardous Substances Act. The proposed amendment would exempt certain lead-containing coatings from classification as banned hazardous substances.

The petition states that the submission is on behalf of its members which manufacture and market certain specialty paints in which lead is a necessary component.

Section 191.9(a) (6) was promulgated in the Federal Register of March 11, 1972 (37 F.R. 5229), and its effective date was confirmed in part in the FEDERAL REGISTER of August 10, 1972 (37 F.R.

The proposed amendment prepared by the petitioner reads as follows:

1- § 191.9 Banned hazardous substances.

(a) · · · (6) (i) • • •

(c) The provisions of this subdivision (i) do not apply to:

(1) Automotive, agricultural, and industrial equipment refinish coatings; (2) Industrial (and commercial build-

ing) maintenance coatings, including traffic and safety marking coatings;

(3) Graphic art coatings (products marketed solely for application on billboards, road signs, and similar uses and for identification marking in industrial buildings)

(4) Touchup coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicles, and appliances;

(5) Exterior marine coatings for small craft application;

(6) Exterior rubber-based roof coatings; and

(7) Exterior primer coatings for wood siding containing extractives (products marketed solely for application on redwood and cedar);

Provided, That these products bear on the main panel of their label, in addition to any labeling that may be required under the act or regulations promulgated pursuant thereto, the signal word "WARNING" and the following statement: "CONTAINS LEAD. DRIED FILM ON THIS PAINT MAY BE HARMFUL IF EATEN OR CHEWED. See other cautions on (side or back) panel." These products shall also bear on their label the following additional statement or its practical equivalent:

Do not apply on toys and other children's articles, furniture, or interior surfaces of any dwelling or facility which may be occupied or used by children.

Do not apply on those exterior surfaces of dweiling units, such as window sills, porches, stairs, or railings, to which children may be commonly exposed.

Keep out of reach of children.

The placement, conspicuousness, and contrast of the above labeling shall be in accordance with the requirements of § 191.101.

The following is the statement of grounds given in the petition in support of the proposed amendment:

On March 11, 1972, the Food and Drug Administration published an order in the FEDERAL REGISTER (37 F.R. 5229) under section 2(q) (1) (B) of the Federal Hazardous Substances Act which, in part, declared any paints or other similar surface-coating materials intended, or packaged in a form suitable for use in or around the household, to be banned hazardous substances if: (1) Shipped in interstate commerce between December 31, 1972, and December 31, 1973, and (2) containing lead compounds of which the lead content is in excess of 0.5 percent of the total weight of the contained solids or dried paint film. On August 10, 1972, this portion of the order was confirmed as effective; that portion of the order pertaining to a 0.06 percent lead level remained under consideration by the

The Federal Hazardous Substances Act applies to paint products which are found to be toxic, which are intended or packaged in a form suitable for use in or around a household, and which may cause substantial personal injury or illness as a result of "reasonably foreseeable ingestion by children" (15 U.S.C. 1261(f)(1)(A)). Most paints in liquid form are not considered toxic under this act because the viscosity of the paint product renders the ingestion hazard extremely remote. Only after the paint product has been applied to a surface accessible to children, and then usually only after the film has flaked or chipped, does a hazard arise that children may ingest the lead content.

Thus, this petition is not necessary because of the requirements of the act since the specialty paints, which are the subject of this petition, are neither intended nor likely to be used on surfaces which are reasonably available to children or on surfaces which will enable flaking and chipping of the paint. This petition is required only because the language of § 191.9(a)(6)(i) appears to be broader in scope than the language in the statute and broader in scope than is necessary to protect against the lead hazard from the dried paint film. The pertinent portion of the regulation reads as follows: "Any paint or other similar surface-coating material intended, or packaged in a form suitable, for use in or around the household". If this operative language had been limited to surface-coating materials which after application would note a load hazard because of reasonably foreseeable ingestion by children, it is clear that the regulation would not apply to these specialty products. This petition for an amendment is submitted, therefore, only to clarify the scope of § 191.9(a) (6) (i) of the regulations.

The Definitions and Procedural and Interpretative Regulations, under FHSA (21 CFR Part 191.1), specify that the act covers those products that under customary or reasonably foreseeable conditions of storage or use may be brought into or around a house, apartment, or other place people dwell, including a garage, carport, barn, or storage shed. The same regulations expressly state that the act does not cover industrial supplies that might be taken into a home by a serviceman. The interpretations specifically provide that a product labeled as and marketed solely for industrial use does not become subject to the act simply because an industrial worker could possibly misappropriate a supply for his own

Thus, this interpretative regulation leaves no doubt that industrial coatings, such as original finish coatings for automobiles, industrial equipment, and farm and garden equipment are outside the scope of the act and therefore remain unaffected by the proposed tolerances. The specialized coating products which are the subject of this petition are similar to the industrial or factory-applied coatings in many respects. They are intended primarily for application to non-

household surfaces, usually by professional painters, and they are not intended or suitable for use on surfaces accessible to children which would create a hazard. The March 11 regulation appears to cover these specialized paints solely because they may at times be found in or around the household in packaged form and not because of any finding that they pose a lead hazard to children.

Congress, in enacting the Federal Hazardous Substances Act, contemplated the dangers offered by a product or article in its liquid state and in its packaged form and thus designed the act to regulate all products "intended or packaged in a form suitable for use in or around the household." Implicit in the quoted language is the assumption that the particular hazard from a product is posed simply because that product is present in the household in packaged form. While this is true of a substance which presents a hazard in its liquid state as, for example, the flammability hazard of certain liquid paints, this is not true of the lead ingestion hazard from paints. The particular hazard posed by lead content in paint does not occur from the liquid paint in the package but, instead, the hazard occurs solely from the dried paint film if ingested by children.

The best information available indicates that children who are disposed to chew paint chips confine their activity primarily to interior surfaces in the house and, perhaps, infrequently to an accessible exterior surface. Children usually are attracted by flakes from old, chipped paint film rather than newlycoated surfaces, and by toys or other articles which they may place in their mouths. This is due in large part to the limited physical abilities of the young children suffering from "pica," the habit of ingesting nonfood items.

As pointed out in comments to the subject regulation, submitted by Dr. Barry King and Dr. Julian Chisholm (noted authorities on lead poisoning), the most critical age for exposure of a child through ingestion of paint, putty, and other lead-containing nonfood materials is usually 1 to 3 years of age. In view of both the restricted mobility and physical limitations of children in this age bracket, they neither have access to, nor are capable of chewing or ingesting, paint chips from surface to which the products for which exemptions are herein requested are applied. In fact, we are not aware of any documented case where a child has attempted to ingest the paint film on automobiles, farm and garden implements, etc.

The American Academy of Pediatrics, in its November 30, 1971 memorandum to the Food and Drug Administration, appears to confirm this: "The American Academy of Pediatrics endorses the principle contained in the petition filed with the Commissioner that paints containing more than minute traces of lead be declared as banned hazardous substances, if intended for use on children's products or interior surfaces (emphasis supplied)." Further, the Senate Com-

mittee Report on the Lead-Based Paint Poisoning Prevention Act Amendments of 1972 refers specifically to coatings "Intended for interior residential surfaces" (S. Rep. No. 92-852, 92d Cong., 2d Sess. (1972)).

Similarly, under the Lead-Based Paint Poisoning Prevention Act (Public Law 91-695) the Secretary of Housing and Urban Development, in consultation with the Secretary of Health, Education, and Welfare, was instructed to develop and carry out a demonstration and research program "to determine the nature and extent of the problem of lead-based paint poisoning in the United States, particularly in urban areas, and the methods by which lead-based paint can most effectively be removed from interior surfaces, porches, and exterior surfaces to which children may be commonly exposed, of residential housing."

Acting under this authority, the Secretary of HUD has determined that the existing conditions that pose a lead paint hazard to children are those surfaces reasonably available to children that present peeling or flaking paint. This has been recently confirmed by the agency by a publication in the October 21, 1972, issue of the FEDERAL REGISTER (at page 22732) entitled "Prohibition of Use of Lead-Based Paint and Elimination of Lead-Based Paint Hazard." This revises pertinent parts of the Code of Federal Regulations already promulgated under authority of the Lead-Based Paint Poisoning Prevention Act. In this revision, with respect to the use of and elimination of existing hazards caused by load baced paint, the Secretary of HUD defines "applicable surfaces" as all interior surfaces and those exterior surfaces, such as stairs, decks, porches, railings, windows, and doors, which are readily accessible to children under 7 years of age." Further, "Health Hazard," with respect to leadbased paint, is defined to mean "crackling (sic), scaling, peeling, and loose leadbased paint on applicable surfaces."

Since the prohibition against use of lead-based paint under this revision extends only to use on "applicable surfaces of any residential structure," clearly then these are the only surfaces found by this agency to pose a lead hazard to children. There is no indication by HUD that the surfaces to which the products under consideration are applied present either an existing or future lead poisoning hazard to children.

It is clear from the foregoing that the hazard sought to be prevented by lead tolerances established in § 191.9(a) (6) is lead ingestion by children who tend to chew dried paint film on interior and exterior household surfaces accessible to these children, and on toys or other articles intended for use by these children. The regulation is not intended to nor should it reasonably apply to the specialized paints under consideration since, through customary or reasonably foreseeable conditions of use, they will not cause a lead hazard for pica children, even though they are packaged in a form suitable for use in or around the household, and thus, incidentally may meet the definitional test of §191.1(c), namely, that "under any reasonably foreseeable condition of purchase, storage, or use the article may be found in or around a dwelling." Thus, petitioners believe these products should not be subject to the provisions of the regulation.

Unlike interior household paints or even exterior paints for household application which could conceivably be substituted for interior use or applied on an exterior surface accessible to children, these specialized products are never marketed for such application. They are neither intended, designed, nor suitable for use in areas accessible to children. These products are limited in purpose and, since they are not general household products, are thus purchased infrequently and never stored around the household in any significant quantity. Furthermore, most of these products are intended for the professional consumer.

The precautionary label proposed in this petition adds an extra measure of protection against any conceivable risk from its lead content due to misuse. The possibility of misusing these products, even without the precautionary label is, however, very remote. The garish color and rough texture of an industrial maintenance coating, such as a red-lead primer in which lead is an important protection material, makes it exceedingly unlikely that anyone would use it on interior household surfaces or other surfaces accessible to children. Other speproducts, such as automobile refinishes, are generally too expensive to be feasible for use on such surfaces. Others, such as touchup coatings in aerosol containers, are packaged in quantities too small for practical use on household surfaces. Additional significant factors militating against misuse of these products are explained in the following discussions of the individual products along with an explanation of why lead is a necessary component in

#### DISCUSSION OF SPECIAL PURPOSE COATINGS

1. Automotive, agricultural, and industrial equipment refinish coatings. Automotive, agricultural, and industrial equipment refinish coatings are designed for use by automobile repair shops or agricultural or industrial equipment dealers for the refinish of automobiles, trucks, agricultural, and industrial machinery. These refinish coatings are marketed through automotive warehouse distributors to automotive parts jobbers, and then to automotive body shops. Agricultural and industrial equipment coatings are sold by equipment manufacturers and subsidiaries to equipment dealers.

Although these refinish coatings are intended for use by automotive body shops or farm and industrial equipment dealers and are not marketed primarily for retail customers, some of these companies have a secondary retail trade. Such retail customers use these coatings to refinish automobiles, agricultural equipment, and industrial machinery.

This refinishing may occur in or about a garage, barn, or shed.

These coatings are usually high-gloss and are customarily applied by spray equipment. Lead is an essential ingredient in many of these coatings for three reasons. First, it is a catalytic drier, necessary to speed the oxidation process and, thereby, prevent dirt or dust from becoming embedded in the film. Second, lead-containing pigments are necessary to match original equipment colors and to prevent a displeasing patchwork effect in coloring which otherwise would appear after a short time due to color chalking and fading. Finally, lead provides the essential resistance to weathering, heat, and other environmental conditions to which automobiles, agricultural and industrial equipment are peculiarly exposed.

When used for the intended purpose, there exists no health hazard to children. Indeed, the only difference between the original factory-applied finish (which is not regulated by the act unless applied to any toy or other articles intended for use by children) and the refinish product is that a can of the latter may find its way into or near the home. The hazard exists, however, not from the liquid in the container but only from the dried film and then only if the film can be ingested by children. It is not reasonably foreseeable that a child would chew on the paint because of the hard substrate to which the paint is applied.

Because of the nature of these refinishing products and their labeling, it is not reasonably foreseeable that they would be used for other than their intended purpose. There are many reasons for this:

a. Spray application, usually with high-pressure sprayers, is recommended for all of these products, and satisfactory results are not obtained with a brush or roller:

b. The high gloss colors found in most of these coatings are not suitable for surfaces in the home;

c. At the retail level, automotive refinishes are roughly twice as expensive as household enamels and paints, and thus it is exceedingly unlikely that consumers would purchase automotive refinish coatings for use on either an interior or exterior household surface since cheaper, better-suited products are more readily available. Further, such costs preclude purchasing more than is actually needed to refinish an automobile;

d. These refinishes, in contrast to general purpose household enamels and paints, often require careful preparation of the metal surface, including grinding, etching, and priming in order to obtain proper adhesion; and

e. The proposed warning label would provide additional protection by indicating to the purchaser that such coatings should not be applied on any surface accessible to children.

2. Industrial (and commercial building) maintenance coatings, including traffic and safety markings coatings. This category includes a variety of coatings

sold for maintenance of plant and equipment, commercial buildings, structural steel (such as bridges), or for safety markings or pavement markings in streets or parking lots. Lead pioment, such as in the commonly used red-lead primer, is an important ingredient in these coatings, principally because it resists corrosion. Lead pigments also achieve the brilliant opaque and durable colors required for safety markings on pavements and industrial areas. There are no substitutes for the lead colors that will adequately perform the same purposes. Organic compounds are weaker in tinting strength, are less durable to weathering, and have a tendency to bleed when overpainted.

Those products are intended for uses which pose no health hazard of children. Industrial plants, commercial office buildings, metal equipment, structural steel, bridges, and the like are not accessible to children. Additionally, the Congress, after hearings, has recognized that such uses are not hazardous. In enacting the Lead-Based Paint Poisoning Prevention Act of 1971 (Public Law 91-695), Congress eliminated the language "any building or structure," and substituted "interior surfaces, porches, and exterior surfaces to which children may be commonaly exposed" in order to exclude industrial and commercial building maintenance use (S. Rep. No. 91-1432, 91st Cong., second session 4-5(1970))

Again it is not reasonably foreseeable that industrial maintenance coatings would be misused and applied to a household surface accessible to children. Large volume users purchase these products directly from manufacturers, and these products are generally unavailable use around the household. Some retail outlets may stock and sell certain lines of these coatings in limited volume to smaller industrial accounts. Such industrial maintenance coatings normally are labeled "Intended for professional use only and not for retail sale." In addition. they will bear the lead warning label required by the proposed amendment. Thus, the possibility of household use is virtually eliminated.

3. Graphic art coatings (products marketed solely for application on bill-boards, road signs, and similar uses, and for identification marking of industrial buildings). These paints or coatings, applied freehand or by hand using a stencil or similar technique, are used to present a graphic image or convey a message. On the basis of intended use and because of a general lack of access by household consumers and children to either the coating or coated surface, graphic arts coatings should be excluded from the regulation.

While these coatings may be stocked by some dealers, they are intended principally for use by professional sign painters for the application of colors to bill-boards, billboard structures, road signs, and similar items and for identification markings of industrial buildings and the equipment installed therein. Most of these coatings are used only under

specific shop conditions for application to plastic and metal surfaces, such as illuminated signs advertising particular businesses (e.g., service stations), or for road-directional markers.

The need for such contrasting colors is mandatory for these types of identification. Existing technology provides no substitute materials for lead which will provide the brilliance, color permanence, and film durability necessary for extended periods of service, particularly under the temperature, sunlight, and humidity conditions of outdoor exposure. Furthermore, for many of these uses, such as application to road signs, these coatings are baked on. No acceptable nonlead colorants, which can withstand such baking, are presently available.

4. Touchup coatings for automobiles, agricultural and industrial equipment, lawn and garden equipment, boats, outboard motors, motorized recreational vehicles, and appliances. These coatings are packaged in small containers or in aerosol containers for use by the consumer in making minor surface repairs to his automobile, household appliance, or other mechanical equipment which may be found in the vicinity of his home. While intended primarily for use in and around the household, they are neither intended nor suitable for application to large surface areas accessible to children. The hard metal surface of the vehicles, appliances, or other equipment on which these coatings are applied do not lend themselves to chewing by children. The very thin, hard coating film on such surfaces cannot be removed and ingested by chewing.

These coatings are packaged and marketed in small quantities, discouraging their use on anything except an extremely small area. As with automotive refinish coatings, they generally are not suited for use other than as intended. Furthermore, to insure against any misuse of this product, each container will carry the required labeling, warning of the lead content and restricting the use of the product.

5. Exterior marine coatings for small craft application. The bulk of marine coatings are marketed for industrial use only, are sold in containers not suitable for use in and around the household, and, therefore, are outside the coverage of the act. Yet, marine coatings also are sold in significant volume at retail for use by consumers in coating small craft, and these coatings could be found in or around the household.

Lead is an essential ingredient for these coatings, primarily for the same reasons it is needed in industrial maintenance. Lead is a necessary component for corrosion control; there are no satisfactory substitutes. As with automative refinish coatings, lead is needed in marine coatings to provide resistance to weathering and other environmental conditions

When used for their intended purpose, marine coatings do not pose a lead hazard to children since the coated surfaces are not accessible to them. Furthermore, it is not reasonably foreseeable

that such coatings would be misused for other purposes in or around a household because other, better suited, less costly coatings are more readily available. Finally, the proposed warning label would clearly indicate to the consumer that the coating should not be applied on any areas accessible to children.

6. Exterior rubber-based roof coatings. These coatings are unique in that they are rubber-based as opposed to the types of materials used in other coatings. Lead oxides are the only known materials available for curing the liquid coatings when applied to surfaces such as roofs where waterproofing is essential. Oxides of no other metals exert any influence on the cure of these rubberized coatings. In addition, lead oxides are required for improved water resistance. These surfaces are obviously not accessible to children and, thus, the intended or reasonably foreseeable use will not create a health hazard for children.

7. Exterior wood primer coatings for wood siding containing extractives (products marketed solely for use on redwood or cedar). Lumber used for fabrication of siding materials may at times be cedar or redwood, each of which contains water-soluble materials which can be leached by moisture and deposited at or near the paint surface. These staining chemicals can have increased solubility in the high pH of emulsion paints and can accentuate the development of unslightly stains on the paint film. A lead compound primer is used when the bare substrate is cedar or redwood, in order to insolubilize the stains before they reach the topcoat. Continued manufacture and sale of exterior staining wood primers of this type, which contains lead, is necessary for this limited purpose.

We do not believe that the use of this product poses a reasonably foreseeable lead hazard to children for each of the following reasons:

a. A lead-containing primer need only be used once, and thus, there is no buildup of layers of lead-containing paint, which is recognized as a primary cause of lead poisoning;

b. Exterior house siding is not readily accessible to children in the sense that porch railings and ornamental surfaces are accessible;

c. Staining, as distinguished from nonstaining, woods are not widely used for siding; and

d. Some of the primer penetrates the wood substrate and thus, should the coating peel, little, if any, of the primer peels with it.

### SUMMARY

While a number of these special purpose coatings may be found in or near the household in packaged form, no lead hazard to children arises either before or after they are applied to the surfaces for which they are intended. Only "household" paints that are intended to be applied to surfaces accessible to children can pose the lead hazard sought to be prevented by the regulation in question.

We are not aware of any data, including reports in medical literature or

human experience, which indicate that children have ingested dried paint films from the types of surfaces on which the products described herein are applied, nor is it reasonably foreseeable that such ingestion would occur. Additionally, considering the inaccessibility of the surfaces to which these paint films are applied and/or the hardness of the film or substrate to which they are applied, ingestion of these products after application is not reasonably foreseeable. Finally, and as previously pointed out, the likelihood of misuse of these products is exceedingly remote.

Accordingly, this petition is submitted in the interest of establishing, for both the consumer and the industry, clarity and certainty with respect to the scope of the subject regulation. This would also avoid the possibility of unwarranted regulatory action resulting from a lack of such clarity and certainty and provide a sound enforcement basis for labeling these classes of products.

#### PROCEDURE

Since this petition is filed prior to the implementation date (December 31, 1972) of the lead order, it is requested that the publication of this petition have the effect of suspending the effective date of the order, pending review of comments and promulgation of a final order in this matter, only as it applies to those paints and similar surface coating materials which petitioners submit should not be subject to the order. Without such a suspension, the manufacture and distribution of the products would be totally disrupted. Manufacturers have not known and still do not know whether to continue or discontinue the marketing of these specialized coatings since there is a substantial unresolved question of their status under the lead order. Additionally, until this question is finally resolved by a final order, customers of these manufacturers, such as distributors or users having a secondary retail trade, cannot with confidence continue to purchase such products. This is because it may be necessary for them to introduce the products into interstate commerce subsequent to the December 31, 1972, implementation date. This petition is not intended to affect the implementation date of the lead standards as they apply to other paints and surface-coating materials.

An additional factor for consideration relates to the labeling required by the proposed amendment. Until the Commissioner determines by regulation the acceptable or desirable label statements for the special-purpose coatings under consideration, manufacturers cannot with confidence label or relabel new production. It will be necessary, therefore, to consider lead time for an implementation date for such labeling as may be required.

Since this petition was received prior to the implementation date (December 31, 1972) of § 191.9(a) (6) (i) (b), the publication of this proposed amendment shall have the effect of suspending said implementation date, only as it applies

to those paints and similar surfacecoating materials as described in this proposal, pending review of comments and promulgation of an order in this matter. This proposal will in no way affect the implementation date of § 191.-9(a) (6) (i) (b) as it applies to other paint and similar surface-coating materials.

This proposal is being issued pursuant to provisions of the Federal Hazardous Substances Act (sec. 2(q) (1) (B), (2), 74 Stat. 372, as amended by 80 Stat. 1304; 15 U.S.C. 1261 (q) (1) (B), (2)) and the Federal Food, Drug, and Cosmetic Act (sec. 701(e), 52 Stat. 1055, as amended; (21 U.S.C. 371(e)) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 2.120). Interested persons may, within 60 days after publication hereof in the FEDERAL REGISTER, file with the Hearing Clerk, Department of Health, Education, and Welfare, Room 6-88, 5600 Fishers Lane, Rockville, MD 20852, written comments (preferably in quintuplicate) regarding this proposal. Comments may be accompanied memorandum or brief in support thereof. Received comments may be seen in the above office during working hours, Monday through Friday,

Dated: November 29, 1972.

SAM D. FINE, Associate Commissioner for Compliance.

[FR Doc.72-20789 Filed 12-4-72;8:45 am]

Social and Rehabilitation Service [ 45 CFR Parks 201, 206 ] PUBLIC ASSISTANCE PROGRAMS

Payments for Ineligible Cases and Overpayments for Eligible Cases; Exclusion of Expenditures

Notice is hereby given that the regula-Notice is hereby given that the regulations set forth in tentative form below are proposed by the Administrator, Social and Rehabilitation Service, with the approval of the Secretary of Health Education, and Welfare. The proposed regulations relate to the programs of financial and medical assistance, authorized under title I, IV-a, X, XIV, XVI, and XIX of the Social Security Act.

The proposed regulations would exclude from Federal financial participation, all expenditures for payments for ineligible cases and overpayments for eligible cases.

Prior to the adoption of the proposed regulations, consideration will be given to any comments, suggestions, or objections thereto which are submitted in writing to the Administrator, Social and Rehabilitation Service, Department of Health, Education, and Welfare, 330 Independence Avenue SW., Washington, DC 20201 within a period of 20 days from the date of publication of this notice in the FEDERAL REGISTER. It is the policy of the Department that 30 days' notice will be given for proposed rule making in the formulation of rules and regulations governing the Department's grant programs. Compliance with such proce-

dures, however, would involve delay in dures, however, would involve delay in implementing urgently needed measures, found to be necessary for the proper and efficient administration of the assistance programs, which are to become effective January 1 1973. Such delay would be contrary to the public interest. Accordingly, we find that there is good cause to reduce the usual period of notice. reduce the usual period of notice. Comments received will be available for oublic inspection in room 5121 of the Department's offices at 301 C Street SW/, ington, D.C., on Monday through Friday of each week from 8:30 a.m. to 5 p.m. (area code 202—963-7361).

The proposed regulations are to be issued under section 1102, 49 Stat. 647, 42 U.S.C. 1302.

Dated: November 29, 1972.

JOHN D. TWINAME, Administrator, Social and Rehabilitation Service.

Approved: November 29, 1972.

ELLIOT L. RICHARDSON, Secretary.

Section 201.5 of Part 201, of Chapter Thle 45 of the Code of Federal Reguis revised to read as set forth below:

8 201.5 Grants.

To States with approved plans, grants are made, prior to the compencement of each quarter, for estimated expenditures under the plan for assistance, services training, and administration. The amount of the quarterly grant award is based upon estimates submitted by the State containing information required by the Administrator, and such other information available to the Department as may be necessary to estimate expenditures properly subject to Federal financial participation.

(a) Form and manner of submittal. (1) Time and place: The estimates for public assistance grants for each quarterly period must be forwarded to the Department of Health, Education, and Welfare, Social and Rehabilitation Service, Washington, D.C. 20201 Attention: Office of Financial Management, with copy to the regional office 45 days prior to the period of the estimate. They include a certification of State funds available and a justification statement in support of the estimates. A statement of quarterly expenditures and any necessary supporting schedules must be forwarded to the same addresses not later than 30 days after the end of the quarter. An annual supplement to the statement of expenditures, for accounting for social service expenditures in accordance with the limitations of section 1130 of the Social Security Act, must also be forwarded to the same addressees not later than 60 days after the end of the Federal fiscal year.

(2) Description of forms: "State Agency Expenditure Projection-Quarterly Projection by Program" represents the State agency's estimate of the total amount and the Federal share of expenditures for assistance, services, training, and administration to be made during

the quarter for each of the public assistance programs under the Act, From these estimates the State and Federal shares of the total expenditures are computed. The State's computed share of total estimated expenditures is the amount of State and local funds necessary for the quarter. The Federal share is the basis for the funds to be advanced for the quarter. The State agency must also certify, on this form or otherwise, the amount of State funds (exclusive of any balance of advances received from the Federal Government) actually on hand and available for expenditure: this certification must be signed by the executive officer of the State agency submitting the estimate or a person officially designated by him, or by a fiscal officer of the State if required by State law or regulation. (A form "Certificate of Availability of State Funds for Assistance and Administration during Quarter" is available for submitting this information, but its use is optional.) If the amount of State funds (or State and local funds if localities participate in the program), shown as available for expenditures is not sufficient to cover the State's proportionate share of the amount estimated to be expended, the certification must contain a statement showing the source from which the amount of the deficiency is expected to be derived and the time when this amount is expected to be made available.

(3) The State agency must also submit a quarterly statement of expenditures for each of the public assistance programs under the Act. This is an accounting statement of the disposition of the Federal funds granted for past periods and provides the basis for making the adjustments necessary when the estimate for any State for any prior quarter was greater or less than the amount the State actually expended in that quarter. The statement of expenditures also shows the share of the Federal Government in any recoupment, from whatever source, of expenditures claimed in any prior period, and also in expenditures not properly subject to Federal financial participation which are acknowledged by the State agency or have been revealed in the course of an audit.

(4) Effective for quarters beginning with the quarter commencing January 1, 1973, all expenditures for payments of financial and medical assistance for ineligible individuals or families and overpayments for eligible cases shall be excluded from State estimates and expenditure reports.

(b) Review. The State's estimates are analyzed by the regional office staff and are forwarded with recommendations as required to the central office. In computing the grant, the central office reviews the State's estimate, other relevant information, and any adjustments to be made for prior periods. Relevant information as to payments for ineligible individuals or families and overpayments includes the most recent data available from reports (as required under § 205.40 of this chapter) on quality control reviews of State samples or the national

# PETITION FOR PRODUCT EXEMPTION FROM THE LEAD PAINT BANNING REGULATIONS [16 CFR 1500.17(a)(6)]

The Honorable Richard O. Simpson Chairman Consumer Product Safety Commission Washington, D. C. 20207

Dear Mr. Chairman:

The National Paint and Coatings Association (NPCA), on behalf of its interested members, hereby submits this petition to exempt from the lead paint banning regulations [16 CFR 1500.17(a)(6)], "coatings marketed solely for use on radio-control powered aircraft."

On December 5, 1972, in response to a NPCA petition, the Food and Drug Administration proposed a regulation under the Federal Hazardous Substances Act (FHSA) which would exempt from the lead paint banning regulation seven specific categories of paint products. On May 18, 1973 NPCA submitted comments on the proposal asking that either an exemption be granted for an additional caregory (coatings for radiocontrol powered aircraft), or that these coatings be included for exemption under the category of "touch-up coatings for motorized recreational vehicles" included in our original petition. By letter dated February 9, 1976 the Consumer Product Safety Commission (CPSC) advised that the NPCA's requested action of May 18, 1973 appeared to be beyond the scope of the original proposed exemption and, therefore, not capable of being included in the final regulation. Accordingly, this specific petition is being filed in order that the Commission (CPSC) may properly consider an exemption for coatings for radio-control powered aircraft.

Under Section 2(q)(1)(B) of FHSA, before a product can be classified as a "banned hazardous substance", a finding must be made that "notwithstanding such cautionary labeling as is or may be required under this Act for that substance, the degree or nature of the hazard involved in the presence or use of such substance in households is such that the objective of the protection of the public health and safety can be adequately served only by keeping such substance, when so intended or packaged, out of the channels of interstate commerce..." The facts relating to lead-containing coatings for radio-control powered aircraft do not support such a finding.

The hazard associated with the use of lead in excess of 0.5% is related exclusively to ingestion of dried paint film by children. The following indicates that such ingestion is not reasonably foreseeable with respect to lead-containing coatings for radio-control powered aircraft.

This type of catalyzed coating, marketed only for use on such powered aircraft, is quite an expensive product, ranging in price from \$2.00 for four ounces to \$3.00 for eight ounces (these products are not sold in amounts larger than eight ounces). Also, these aircraft and their ground support electrical equipment are extremely expensive, ranging from \$200.00 to \$600.00. Beyond that, the product used to finish these aircraft is spray-applied, involving additional investment for spray equipment. Because of these cost factors and the intricacies of the equipment, both the planes and the products used to finish them lend themselves for use by adults only. The coatings are likely to be used only for the purpose intended. Thus, the coating would not be available for ingestion by children.

These products are too expensive; are sold in too small amounts, and are too specialized to be used on surfaces of dwellings, toys, etc., from which it may be expected that children would ingest the dried paint film. Beyond that, the radio-control powered aircraft on which these products are applied are marketed solely for adults. They are not children's articles; thus, they cannot be !considered intended for use by children. Because of their expense and ease by which they could be damaged, it is not likely that they would be placed in the possession of children or even be allowed to be handled by children. Therefore, absolutely no hazard of lead ingestion by children has been shown to exist or can reasonably be expected from the continued use of lead additives in coatings for radio-control powered aircraft.

With respect to the essential need for various lead chromates in these coatings, those purchasing powered aircraft desire authenticity to the colors for coatings utilized on military and commercial aircraft. Since paints used on military and commercial aircraft contain certain lead chromates to achieve a certain color, as well as for durability and other protective purposes, lead compounds must be added to the formulations of coatings for radio-control powered aircraft in order to achieve similar colors.

A compelling reason that authentic colors are desired is that radio-control powered aircraft are entered into competition in which the color as well as the quality of the air craft finish is judged. To meet these tough competitive standards for quality and appearance, the finish must be spray-applied, as indicated earlier.

Paints and coatings for use on radio-control powered aircraft, with respect to their lead content, bear a striking resemblance to those categories of paint products for which exemptions have already been requested. Lead is a necessary component of these products, as indicated above. More importantly, although these products are both intended and packaged in a form suitable for use in and around a household, it is highly unlikely that children will ingest the dried paint film. Therefore, we request that our arguments in support of exemption for the seven categories of products in our initial petition be incorporated herein by reference.

Also, the principal supportive arguments used by the Consumer Product Safety Commission to exempt lead-containing artists' paints and related materials [38 F.R. 27514] apply equally as well with respect to lead-containing coatings for radio-control powered aircraft. Therefore, it is requested that these arguments also be incorporated herein by reference.

To summarize, the use of lead chromates is necessary in coatings for radio-control powered aircraft to achieve authenticity of colors. Because of the relatively high cost of these products and the small amounts in which they are marketed, these materials are unlikely to be used as household paints. Fruther, these coatings are not likely to be ingested by children after being applied to the surfaces intended (radio-control powered aircraft marketed for adults).

For the reasons expressed herein the NPCA respectfully requests your favorable consideration of this additional petition. As was the case with our original petition and for artists' paints, it is our understanding that the filing of this petition has the effect of staying the ban with respect to lead-containing coatings for radio-control powered aircraft until a final decision on this petition has been rendered.

Very truly yours,

John M. Montgomery General Counsel

March 19, 1976

CC2-77-39

# PROPOSED REGULATION OF LEAD-BASED PAINT AND CERTAIN CONSUMER PRODUCTS BEARING LEAD-BASED PAINT UNDER THE CONSUMER PRODUCTS SAFETY ACT AS BANNED HAZARDOUS PRODUCTS

With respect to proposed Part 1150, the Consumer Product Safety Commission has requested written comments on or before September 24, 1976. The National Paint & Coatings Association submits the following comments and urges that they be given careful consideration.

A. Specific comments on Section 1150.7 - Articles of furniture bearing leadcontaining paint or other similar surface-coating materials.

This proposed regulation would declare articles of furniture bearing lead-containing paint or other similar surface-coating materials to be banned hazardous products under Section 8 of the Consumer Product Safety Act (15 U.S.C. 2057).

In relevant part, the Lead Based Paint Poisoning Prevention Act (LBPPPA), as amended, directs the Commission to "take such steps and impose such conditions as may be necessary or appropriate to prohibit the application of lead-based paint to any toy or furniture article" (Sec. 401(c), 90 Stat. 705). Clearly, the Commission is given a great deal of latitude by this language. If it makes a determination that no hazard exists, i.e., no "steps or conditions are necessary or appropriate", the Commission would be justified in not regulating in this instance.

The National Paint & Coatings Association, Inc. (hereinafter referred to as NPCA, and headquartered at 1500 Rhode Island Avenue, N.W., Washington, D.C.), is a voluntary, non-profit industry association originally organized in 1888 and comprising today approximately 1,000 members, who are engaged in the manufacture and distribution of paint, varnish, lacquer, and allied products, or of the materials used in such manufacture. The membership of NPCA collectively produces about 90% of the total dollar volume of paint, varnish, lacquer and allied products produced in the United States.

Toys and other children's articles are, of course, already regulated under the Federal Hazardous Substances Act, 16 CFR 1500.17(a)(6)(ii). Thus, the Commission already regulates these items which include children's furniture such as cribs, play pens, high chairs, etc.

Further, under current FHSA regulations, consumers cannot purchase lead-containing paint for application to furniture. Regulations under the FHSA declare as banned hazardous substances, "any paint or other similar surface-coating material intended, or packaged in a form suitable for use in or around the household" ... that exceeds the prescribed lead level. This language covers consumers paint products which would be purchased for use on furniture.

It appears to NPCA that any lead-containing paint hazard associated with furniture would result from a situation in which the article had been non-professionally repainted several times. In such a situation, the paint may be accessible to and chewable by children and thus present a health hazard.

With respect to the use of and elimination of existing hazards caused by lead-based paint, the Secretary of Housing and Urban Development (HUD) defines "applicable surfaces" as all "interior surfaces and those exterior surfaces, such as stairs, decks, porches, railings, windows and doors, which are readily accessible to children under 7 years of age." Further, HUD defines "health hazard", with respect to lead-based paint, to mean "cracking, scaling, peeling and loose lead-based paint on applicable surfaces."

These definitions point out that not only must the painted surface be accessible to children, the lead-based paint must be in a condition (loose and peeling) that permits ingestion.

Since toys and childrens articles, such as furniture which bears lead-containing paint already are regulated, specifically, and since consumer paints for repainting furniture already are regulated with respect to lead content, the Commission may determine that no further regulation of other types of furniture is necessary, since no health hazard exists. If, however, the Commission believes some regulation of furniture bearing lead-containing paint is necessary, it should limit such regulation to:

Articles of furniture bearing lead-containing paint or other similar surface-coating materials which are accessible to and chewable by children.

Most state lead laws which address this matter (furniture) have added the modifying phrase "accessible to and chewable by children," as underlined and recommended above.

Such a regulation would preclude coverage of all types of metal articles, which may be considered as furniture, such as metal chairs and metal desks, metal coffee tables, bed frames, etc.

With respect to industrial coatings for such metal articles, they normally are cured in an oven for ten to twenty minutes at high temperatures (300 - 400°F).

The heat-cured organic coatings, because of the heat-reactive polymers used, provide an extremely hard, smooth, tough, adherent and durable film.

Prior to their adoption as production coatings, these products must survive rigorous testing against industry standards for hardness, toughness, adhesion, and crack and chip resistance. Usually, metal articles of this type have no more than 1 to 2 thousandths of an inch of coating, so there is little film which could be removed.

Thus, while a factory-coated article of furniture may be physically accessible to children, the nature of the substrate and the nature of the film make it extremely unlikely, if not impossible, to remove the coating by biting, chewing, or gnawing. This thin film, therefore, is not available for ingestion. On the other hand, the cost of coatings for such articles would increase substantially, while appearance and functional properties would deteriorate if lead-type pigments were eliminated.

In light of these factors, it is in the public interest to regulate only furniture articles bearing lead-containing paint or other similar surface-coating materials which are accessible to and chewable by children, i.e., articles from which the paint film can be removed and ingested. The health hazard intended to be eliminated is the hazard to young children of lead poisoning upon ingestion of lead-containing paints and similar materials. If the paint film cannot be removed and ingested, there is no hazard, and — no need to regulate.

# B. General comments on proposed Part 1150.

With respect to those specific points on which the Commission solicits data, information, views and arguments, the following is submitted, to wit:

1. The degree and nature of the risk of injury the rule is designed to eliminate or reduce.

The nature of the risk presented in this instance is clear. It is the potential risk to children from the many various environmental sources of lead poisoning.

The degree of the risk can obviously be quite severe and should be controlled to the maximum extent possible.

The primary question here, however, is neither the nature nor the degree of the risk, but whether there is, in fact, any risk from the small amount of lead driers in modern residential paints. NPCA consistently has maintained that any risk of lead poisoning to children is associated with ingestion of old truly lead-based paints found on the walls of dilapidated housing constructed prior to World War II which contained amounts of lead up to 50 - 60%. The proponents of a lower lead level maintain, on the other hand, that even the small amounts of certain lead compounds, used as driers in modern residential paint, present an unreasonable risk of injury.

In order to resolve this controversy, the Commission should thoroughly consider and objectively evaluate all relevant scientific evidence and data, along with human experience, and render a final judgment as to whether modern residential paint products containing up to 0.5% lead present a risk. If the Commission determines that some risk is, in fact, presented, then it must balance the risk against any benefits which may be deprived by its action, to determine whether the risk is unreasonable.

2. The approximate number of consumer products, or types of classes thereof, subject to such rule.

It is our opinion that, under proposed Part 1150, essentially the same consumer products, with the exception of furniture which has never been regulated in the past, would be regulated as are presently regulated under the Federal Hazardous Substances Act. As we have indicated on prior occasions, the current regulations under that statute are more than adequate with respect to product coverage.

In view of the foregoing, there is no jurisdictional justification for transferring regulations of lead-containing paint and other similar surface-coating materials on toys and other articles intended for use by children bearing lead-containing paint to the Consumer Product Safety Act. Furthermore, there is no reason why furniture bearing lead-containing paint or other similar surface-coating materials could not be regulated under the Federal Hazardous Substances Act as well, if such regulation is deemed necessary. As we stressed in our comments regarding proposed Part 1145 (Footnote 2), the transfer of regulations from FHSA to the Consumer Product Safety Act serves no useful purpose, is confusing, and would likely interfere with, rather than promote, orderly compliance. Therefore, we recommend that the proposed transfer of regulations be abandoned.

<sup>&</sup>lt;sup>2</sup>NPCA comments on proposed Part 1145, filed separately in accordance with Federal Register Notice.

3. The need of the public for the consumer product subject to such rule and the probable effect of such rule upon the utility, cost, or availability of such products to meet such need.

The value of and need for consumer paint products is obvious and need not be elaborated upon. The probable effect of the removal of lead driers from residential paint products was discussed in depth during our oral presentation to the Commission at the hearing on September 13, 1976. Further, it is our understanding that the current up-dating of the study conducted by Battelle will shed further light on the adverse impact which the elimination of lead driers might have with respect to utility of the products affected, cost and future availability of such products. In addition, we have been advised by certain of our members that the elimination of lead driers will result in a discontinuation of certain lines of oil-based exterior consumer house paints.

4. Any means of achieving the objective of the rule while minimizing adverse effects on competition or disruption, or dislocation of manufacturing and other commercial practices consistent with the public health and safety.

During its oral testimony, NPCA emphasized the tremendous adverse impact of a 0.06% lead level for modern residential paints if trace contaminants of lead compounds would preclude a paint manufacturer from meeting such a level even though no lead was deliberately added to his residential products and even though he took all reasonable precautions to prevent lead contamination.

Further, we pointed out that adoption of this lower level could require that

certain paint manufacturers either eliminate a total segment of their business, i.e., either residential or industrial paint products, or construct a new plant in which they created a sterile, lead-free environment for the manufacture of residential paint products, or simply shut down operations. The impact of any of these alternatives could be devastating, especially on the many small paint manufacturers who are presently manufacturing lead-containing industrial products and residential or trade sales paint products in the same plants.

To alleviate such an impact, and in the event the survey we presently are conducting demonstrates such an impact, we have urged that the Commission adopt a regulation which would prohibit the deliberate addition of lead to residential paint products, but which would set a 0.2% level for regulatory purposes that would protect paint manufacturers from indiscriminate liability as a result of product contamination (lead not intentionally added), which cannot be prevented even with the best consistently-achievable level of good plant housekeeping. We believe that such a standard, if justified, would be consistent with public health and safety since no lead ingredients would be added deliberately during the manufacture of residential paint products. The only lead contained in such products would result from trace contaminants which, in most cases, would fall far below the 0.06% level. However, a 0.2% standard for regulatory purposes, if allowed, would help alleviate the adverse effects on competition, and disruption or dislocation of manufacturing which would result from imposition of a 0.06% standard.

A point to be stressed in this instance is that very large manufacturers may have the necessary resources, capital and facilities to meet the proposed 0.06% standard while the smaller paint manufacturers assuredly do not. For example, the major companies can segregate their facilities. They can utilize one of their plants to manufacture only residential paint products. They can run the necessary quality control tests. They can afford the sophisticated atomic absorption analytical equipment and the trained personnel necessary to operate such equipment, whereas the small paint manufacturers cannot. If the trace contamination problem exists, the 0.2% regulatory level, combined with a no-lead-added requirement, would alleviate, to a very great extent, the impact on small manufacturers. We commend such an approach to the Commission.

5. The necessity of the rule to eliminate or reduce the unreasonable risk of injury associated with the consumer products subject to the rule.

Assuming there is an unreasonable risk associated with a 0.5% lead-in-paint standard, there still remains a real question as to the need for any further regulation to eliminate this unreasonable risk. The Commission's own data reflects that the vast majority of residential paint products today fall well below the currently-proposed lowest possible level, i.e., 0.06%. This seems to confirm that the paint industry has consciously eliminated the use of lead driers to the fullest degree technologically and economically feasible. Thus, the limited use of lead compounds in residential paint products today is due principally to the special value of lead driers under adverse climatic conditions — temperature and humidity — in certain parts of the country.

# 6. Whether the rule is in the public interest?

If the Commission determines that the present 0.05% lead standard for residential paint products presents an unreasonable risk of injury, and if the Commission further determines that the voluntary action of the paint and coatings industry in reducing the use of any lead compounds, including lead driers, to only those certain residential paint products in which they are required for proper drying under special climatic conditions, are insufficient to protect the public health from the unreasonable risk presented, then the Commission would have public interest justification to adopt such regulations.

7. The feasibility of a consumer product safety standard under the CPSA to protect the public adequately from the unreasonable risk of injury associated with lead in paint above the safe level.

As we have noted previously, we believe the products in question should continue to be regulated as "banned hazardous substances," under the Federal Hazardous Substances Act. Therefore, our comments with respect to that issue pertain here. (Footnote 2, supra.)

# 8. The potential environmental effects of the rule.

NPCA is not aware of any significant adverse environmental effect which would result from adoption of the propose rule. On the other hand, since the Commission's own data confirms that small amounts of lead compounds (lead driers) are being used today in only a limited number of residential house paints (see our comments on Item 5, at page 9), it does not appear that there will

be any real environmental benefit, in the sense that the overall amount of lead in the environment will be significantly reduced, if the proposed rule should be adopted.

\_\_\_\_\_\_

Finally, in closing, no additional comments have been provided on the proposed revocation of regulations (1500.17) since our strong views opposing a change, from regulating subject matter under FHSA to CPSA, were expressed in our comments on CFR Part 1145. These comments, previously mentioned, were filed on September 9, 1976, as required. Since they must be considered in conjunction with comments herein, a copy of our comments on 16 CFR Part 1145, is attached hereto.

Of particular significance, in the aforementioned section 1500.17 (41 F.R. 33640) is the statement that ...

"Any outstanding proposals under the FHSA to amend \$1500.17(a)(6) shall upon promulgation of the CPSA regulations, be transferred to the authority of, and acted upon under, the CPSA. Any outstanding petitions to amend \$1500.17(a)(6) shall also, upon promulgation of the CPSA regulations, be transferred and considered under that act."

In view of the foregoing, we are of the opinion that the "Proposed exemption of certain lead-containing paints and other similar surface-coating materials"

(37 F.R. 25849-53; December 5, 1972) will maintain its status quo under CPSA, even if the proposed transfer of regulations should take place — that it will not lose its status as a proposed amendment to the regulations, and that, in fact, any lower lead level that may be adopted (as a result of the current proceedings), still is stayed under that regulation, with respect to those seven (7) requested exemptions, until final rulemaking on the proposed amendment.

The proposed regulation, to amend and clarify referenced section of the FHSA regulations, is vital to the paint and coatings industry.

C(2-77-40)

Outdoor Advertising Association of America, Inc. MAR 23 4 44 PM '77

VERNON A.(VERN) CLARK Vice President Legislative

CONSUMER PROBUCT.

March 23, 1977

Ms. Sadye E. Dunn Secretary U.S. Consumer Product Safety Commission Washington, D.C. 20207

> RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT ON LEAD CONTENT IN PAINT

Dear Ms. Dunn:

On behalf of the Outdoor Advertising Association of America, Inc., enclosed for filing with the Commission are an original and four (4) copies of comments on the abovereferenced Environmental Impact Statement.

Sincerely,

Vernon A. Clark

enclosures

L(2-77-40)

Before The Consumer Product Safety Commission

RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT ON LEAD CONTENT IN PAINT

COMMENTS OF OUTDOOR ADVERTISING ASSOCIATION OF AMERICA, INC.

On January 24, 1977, the Consumer Product Safety Commission released a draft environmental impact statement in which various alternative regulatory actions were discussed. One of the alternatives involved the denial of the pending proposed exemption for graphic arts coatings. Outdoor Advertising Association of America, Inc. submits these Comments on the Draft EIS in order to acquaint the Commission with the adverse impact of this proposed course of action.

The Draft EIS considers five alternative courses of regulatory action with respect to paints and coatings containing lead. The second alternative provides for the regulation of these products and the denial of all the currently proposed exemptions including that for graphic arts coatings. The draft environmental impact statement acknowledges that the total economic effects of denying the exemptions cannot be accurately assessed, but, in referring to graphic arts coatings, the draft environmental impact statement states that the denial of the proposed exemption would have "no impact".

This is not true. Requiring the use of lead-free graphic arts coatings would undoubtedly result in added costs. Although these cannot be accurately estimated, it is safe to assume that they would be substantial.

On March 11, 1977, the Outdoor Advertising Association of America, Inc. furnished to the Commission comments on the proposed regulation. A copy of these comments is enclosed herewith. In these comments it is noted that

- 2 -

members of our Association own and operate 39000 painted bulletins. It has been estimated that the annual cost of paint for the average painted bulletin is between \$50 and \$100. This is for paint alone and would amount to several million dollars annually for our members.

The 39000 painted bulletins operated by Outdoor Advertising Association of America, Inc., members are, moreover, a small part of the total number of signs of this type. In 1966, pursuant to the Highway Beautification Act of 1965, the Federal Highway Administration and the states inventoried all off-premise signs within 660' of major Federal-aid highways. The total was approximately 1.2 million, most of which were painted signs produced with graphic arts coatings.

Several graphic arts coatings producers have advised that the cost of these coatings would double, if the use of lead is severely restricted or prohibited. This would result in increased paint costs to our members of several million dollars annually. Since our members operate only a small fraction of the painted off-premise signs throughout the country, it can be seen that the total adverse impact of a ban on lead in graphic arts coatings would be substantial.

The above discussion relates to increased cost of materials. A ban on the use of lead in graphics arts coatings would likewise result in increased skilled labor costs. Non-lead pigments, in certain colors, at the proper viscosity for brush application do not have the hiding power necessary for one-coat or one-stroke work. Use of these products could materially increase the cost of the labor involved in the production of a painted bulletin.

### The Commission May Not Have Jurisdiction Over Graphic Arts Coatings

The Consumer Product Safety Act, Title 15, Section 2052(a)(1)(A) states that the term "consumer product" shall not include "any article which is not customarily produced or distributed for sale to, or use or consumption by, or enjoyment of, a consumer." Graphic arts coatings would thus appear to be not

subject to the Act. As noted in our March 11, 1977, submission to the Commission, the cost of graphic arts coatings, and the professional supply channels used in their distribution makes highly unlikely their use by a consumer, or for home maintenance.

For the above reasons, together with those in the attached March 11 submission, graphic arts coatings should be exempted from the proposed regulation.

RE:

LEAD-BASED PAINT AND CERTAIN CONSUMER PRODUCTS
BEARING LEAD-BASED PAINT: PROPOSED REGULATION UNDER
THE CONSUMER PRODUCT SAFETY ACT AS BANNED HAZARDOUS
PRODUCTS; PROPOSED REVOCATION OF REGULATION. 16
C.F.R. Parts 1145, 1150, 1500 (41 FED. REG. 33637-40,
AUGUST 10, 1976).

## COMMENTS OF OUTDOOR ADVERTISING ASSOCIATION OF AMERICA

## INTRODUCTION

On August 10, 1976, the Consumer Product Safety Commission ("the Commission") published Federal Register notices proposing to repeal the existing Federal Hazardous Substances Act ("FHSA") regulation on lead-based paint and to replace it with a new regulation under the Consumer Product Safety Act ("CPSA"), declaring lead-based paint (paint with a lead content above a specified percentage, to be determined in the proceeding) to be a banned hazardous product under Section 8 of the CPSA. 41 Fed. Reg. 33637. In connection with this rulemaking, the Commission indicated its intention to transfer and consider any exemption proposals pending under the FHSA regulations. 41 Fed. Reg. at 33640.

Apparently the Commission thus intends to act on the pending proposals, published December 5, 1972, by the Food and Drug Administration (37 Fed. Reg. 25849), to exempt graphic arts coatings and six other categories of industrial and commercial paint products from the ban, on the condition that their labels bear specified statements warning about the hazards of lead ingestion by children.

The Outdoor Advertising Association of America, Inc. (OAAA) is filing these comments to bring to the Commission's attention its views in support of the proposed exemption for graphic arts coatings. The proposed exemption for graphic arts coatings is wholly consistent with the purposes of the Commission's regulation of lead-based paint.

#### FACTS

The OAAA is a national trade association of approximately 400 outdoor advertising companies. Together with 200 nonmember companies, they comprise what is referred to as the "standardized outdoor advertising industry". The standardized industry operates in approximately 8000 markets, utilizing about 233,000 poster panels of a uniform size, and 39000 painted bulletins. Painted bulletins are generally 400 square feet or over in size. One widely used bulletin measures 14' by 48', or 672 square feet. Almost all of the painted bulletins, and a small percentage of the poster panels, are hand-painted, using paints of the type referred to in the draft environmental impact statement as graphic arts coatings. Exhibit "A" illustrates the production of a painted bulletin.

Graphics arts coatings used in the production of painted bulletins, poster panels, and other outdoor advertising devices commonly referred to as billboards are applied to the sign faces in buildings or areas far removed from residential surroundings. Nor are the finished billboards ever found in or around the home. They are customarily located in commercial or industrial settings; the painted display surfaces are generally elevated above the ground level to the point that they are only accessible by ladder or crane. Thus, they are beyond the physical reach of the general public. In the life span of the painted billboard,

it is only available for physical contact by the professional painter who creates the sign, and the mechanics who erect and periodically maintain it.

The professional artists who execute the art work on painted bulletins are highly skilled. A painted bulletin was the feature display in the "Signs of Life" bicentennial exhibit at the Renwick Gallery, Smithsonian Institution, in Washington last year.

As is seen in Exhibit "A", the artists who paint outdoor advertising displays use a variety of bright, contrasting colors. A major percentage of the colors consist of various shades of yellow, orange, green and red. To ensure that the paint has the characteristics needed, such as hiding power, brilliance, and a viscosity which allows brush application, lead-containing pigments are needed. Non-lead-containing pigments which are currently available may have some of these characteristics, but none possesses them in the combination in which they are needed by professional sign painters.

Graphic arts coatings used on painted bulletins are not generally available through supply channels used by the homeowner. They are sold direct by the manufacturer or by sign supply houses. They are, moreover, double or triple the cost of regular paints and enamels.

#### ARGUMENT

Graphic Arts Coatings should be exempted from the ban on lead-based paint because they do not contribute to the hazard the Commission is seeking to reduce or eliminate.

The primary thrust of the laws and regulations controlling the distribution of lead-based paint has been to prevent the ingestion of chips

of the paint by small children. For instance, Sections 4811, 4821, 4822, and 4831 of Title 42, U.S. Code, all have to do with prohibiting the use of lead-based paint on "interior surfaces, porches, and exterior surfaces of residential housing to which children may be exposed" and "the application of lead based paint to any toy, furniture, cooking utensil, drinking utensil, or eating utensil ...".

The concern of the Congress, in enacting the Lead-Based Paint Poisoning Prevention Act is best expressed in the following paragraphs from Senate Report No. 91-1432:

"The problem of childhood lead poisoning caused by the ingestion of lead-based paints has reached epidemic proportions in most of our large cities. The high incidence of lead poisoning is of particular concern to young children living in the "lead-belts" of our city slums. It has also been reported in children from economically and socially advantaged homes. The accessibility to flaking or peeling lead-based paint and to broken plaster, along with the lack of knowledge among parents that ingestion of such substances is dangerous and even lethal, is responsible for lead poisoning. The situation is aggravated by a high incidence of pica which is an appetite for nonfood items such as dirt, paper, paint, and plaster in young children.

"Generally, buildings constructed prior to World War II, more than 30 years ago, are the prime source of lead-based poisoning today. As these buildings deteriorate, peeling paint and falling plaster become easily accessible to young

children. The occupants of such housing are largely low-income families, many with large numbers of children. Although lead has generally been replaced by titanium in interior paints, children who eat the chips of paint and plaster from pre-World War II housing are affected by those earlier applications of lead-based coatings."

The Senate report continues that "the committee feels that where lead-based paint may have unique qualities it should be able to be used so long as the lives of children are not in danger."

In view of the following, graphic arts coatings should be exempt from the regulation on lead-based paints:

- 1. Graphic arts coatings are applied in areas which are inaccessible to young children.
- 2. They are applied to surfaces which are inaccessible to young children.
- 3. They are not sold through retail outlets utilized by homeowners or persons engaged in constructing or maintaing residential structures.
- 4. Their cost would alone make their use on residential surfaces highly unlikely.



MAR 23 3 42 PM '77

Ford Motor Company

CONTUNER REDUCT SAFETY COMMISSION The American Road Deerborn, Michigan 48121

March 23, 1977

Ms. Sayde E. Dunn Secretary Consumer Product Safety Commission Washington, D.C. 20207

Dear Ms. Dunn:

Re: Draft Environmental Statement Related to Proposal to Regulate Paint and Other Surface Coating Materials Containing More Than 0.05% Lead

Ford Motor Company, a distributor of lead-containing automotive refinishing and touch-up paints, having a principal place of business in Dearborn, Michigan, comments as follows on the "Draft Environmental Impact Statement on Lead Content In Paint", dated January 19, 1977.

Ford supports Alternatives Nos. 3 to 5 to the extent that each would exempt lead-containing automotive, agricultural, and industrial equipment refinish and touch-up coatings. As stated in our response of September 24, 1974 to PR Doc. 76-23113, it is very unlikely that young children would ingest the dried film of these specialty coatings. The draft Environmental Statement supports this view, stating at page III-18 with respect to all seven categories of specialty coatings (listed at page I-A-8), that only "in extreme cases" might children have access to chips and peelings thereof. Obviously, the two categories (1 and 4) to which Ford seeks exemption would provide fewer chips and peelings than all seven categories collectively, and hence the environmental benefit of banning coatings in those two categories would be trivial.

Against this trivial benefit must be weighed the substantial economic detriment, well set forth at pages IXI-15 and IXI-16 of the draft Statement, of banning category 1 and 4 coatings. For the reasons set forth in the Statement, banning lead-containing automotive refinish coatings and lead-containing touch-up coatings would indeed have a major adverse economic impact and banning lead-containing agricultural equipment refinishing coatings would have at least a moderate adverse impact.

Ma. Sayde E. Dunn

(The draft Statement comments, at page III-16, that industrial maintenance coatings are unimpacted economically because such coatings do not constitute a consumer product of any consequence. Therefore, exemption of the insubstantial amount of such coatings as may find its way into the consumer market would pose no appreciable hazard to consumers, in particular children).

For these reasons, Ford continues to support exemption of lead-containing automotive, agricultural and industrial equipment refinish and touch-up coatings.

Sincerely,

J. C. Eckhold



## DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20201

TAR 4 2 42 PH 77

EARL FOR THE STATE

Secretary Consumer Product Safety Commission Washington, D.C. 20207

Dear Sir:

Enclosed are this Department's comments on the draft Environmental Impact Statement for lead content in paint.

Thank you for the opportunity to review the document.

Sincerely,

Charles Custard

Director

Office of Environmental Affairs

Enclosures

## **MEMORANDUM**

## DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Public Health Service

Director

DATE: March 15, 1977

Office of Environmental Affairs/DHEW

FROM : Principal Environmental Officer/H /2/

SUBJECT:

Comment on USCPSC DEIS on Lead Content in Paint, January 19, 1977

Reference: DHEW Control No. 815

The subject document has been reviewed by technical staff of the Public Health Service. A copy of narrative comments of the Center for Disease Control is attached.

While the Public Health Service concurs in the decision of USCPSC "to ban lead containing paint for consumer uses as well as certain other consumer products bearing such paint above the 0.06% lead level," we feel that the EIS could be strengthened in several ways.

1. Since the lead in paint is only one facet of the environmental lead problem, some discussion should be included which will present lead contamination in general.

Also, the statement should deal systematically with the environmental impact of lead-bearing paints vis-a-vis other lead-bearing contaminants insofar as total exposure of the individual is concerned. Attached are a CDC (NIOSH) publication, Human Exposure to Lead from Motor Vehicle Emissions, prepared by Dr. Bridbord and Human Health Consequences Due to Lead Exposure from Automobile Emissions prepared for the DHEW Committee to Coordinate Toxicology and Related Programs. We recommend that these references be forwarded to USCPSC with the DHEW response.

2. We question the proposed exemption of metal furniture, metal window dressings (venetian Blinds) and househould appliances from the provisions of the regulation. PHS reviewers are agreed that such products may very well be a potential source of lead exposure for children. If exemption is to prevail, data conclusively supporting the decision should be presented.

- 3. Our review has focused on the section entitled, "Health Effects of Lead in Paint and Risks from Consumer Products." There appears to be many incomplete or inaccurate statements in this section such as the statement on page ID-1 which infers that there is no evidence to substantiate the safe level of .06 percent for lead in paint. It is felt that the technical documentation contained in reference 9 of the statement adequately describes the rationale of the above recommended tolerance. Also, on page ID-2 the author refers to the "metabolism of lead" which is inaccurate since lead is stored, deposited, excreted or bound to ther compounds and not metabolized in the human body. It is recommended that the test of this section be revised to more closely reflect the technical findings of the National Academy of Sciences Report, Recommendations for the Prevention of Lead Poisoning in Children. (Reference 9 of the Subject DEIS)
- 4. PHS staff feel generally that considerably more attention could be given to assessment of health impacts upon the population. Enclosures

#### Center for Disease Control

## DEIS: U.S. Consumer Product Safety Commission LEAD CONTENT IN PAINT

The U.S. Consumer Product Safety Commission document on Lead Content in Paint reveals the need for additional consideration of the impacts of the alternatives proposed. Germane to these impacts is the assumption throughout the environmental statement, which perhaps more by accident than design, continues to foster a common misconception alluding to and duly referencing "children with pica for paint." This expression came from the National Academy of Sciences July 1976 Statement and was referenced to an article written 20 years ago. Our objection to this statement is that it associates children with undue lead absorption with a condition that is ill-defined at best. Five year old children with pica certainly are at increased risk for undue lead absorption, but the primary concern is children age 3 and under. All of those children cannot be characterized as suffering from pica for paint.

While the appetite disorder pica, manifested by persistent mouthing and swallowing of nonfood materials, occurs in a significant number of children in the population at risk, mouthing and swallowing of nonfood materials is common in the majority of children under age 3 regardless of socioeconomic position or risk. All children under age 3 are at greater risk when the cumulative intake and absorption of lead from all sources is considered. The high risk child, however, is at greater risk because of the lead paint hazard existing in his living environment.

The National Academy of Sciences in its report to the Consumer Product Safety Commission repeatedly stressed the association shown by researchers to exist between subclinical lead levels in children and decreased general cognitive, verbal, and perceptional abilities and an association with hyperactivity and deficiencies in fine motor functions. There is no justification for allowing an increased hazard to the health of the Nation's children in the interest of giving paint companies additional time to switch over to lead-free manufacturing processes. No matter how equivocal the ideas are expressed with terms such as "slight" or "moderate," increased delay in initiating 0.06 limit on lead in paint equals increased risk to children in the future.

Adverse effects on the paint industry are estimated with great precision; health effects are not. The latter is dismissed with the statement that the present level of knowledge does not permit estimation of the number of cases of lead poisoning prevented. Yet minor and moderate are used to characterize health impacts without any evidence to support definition of the terms. It would seem that with sufficient background work, a model could have been developed

to generate health effects numbers to compare with those depicting the effects on the paint industry.

While a case may be made for an incremental approach to the lower limit in terms of a changeover, it is also true that the paint industry has had several years notice that 0.06 or something near this limit would be enacted into law. If an "irreversible and irretrievable commitment" by the manufacturers is needed to find acceptable substitutes for lead, then they are overdue. It appears from information presented in the document that no breakthrough in technology is necessary. It is already available. Therefore, the irretrievable commitment must come from the manufacturers to use available substitutes rather than to continue to seek solutions from research and development.

The cost of batch testing for lead content is advanced as a major problem for the paint industry. Admittedly, investments in the testing of paint batches are formidable, even when considering the worst case scenario presented as being somewhat excessive. Admittedly, atomic absorption spectrometry (AAS) analysis and an 8-hour wait for completion is going to magnify production costs. The use of AAS for analysis, however, is an unrealistic method to use for that application. The technology currently exists and is in daily use to give the required sensitivity on liquid paint in 3 minutes. In addition, costs stated for outside laboratory assays are excessive. Presently these analyses can be contracted for \$4.50 a sample from a commercial laboratory. Large operations could likely realize some further economies through lower unit cost/test.

Additional consideration sholld also be given to the exceptions proposed under Aleernative No. 3. While more exemptions appear reasonable, metal lawn furniture and ra io-controlled model airplanes do not appear to belong in the same grouping of exemptions. These latter two were not given benefit of an explanation in the document. Model airplanes are perilously close to toys and certain inexpensive metal lawn furniture is of the type that is most likely to be found in high risk areas. Specificity is the key to a determination for an exemption. Perhaps it is an error to equate certain of these low volume, low risk items in the same alternative as those that are obvious exemptions such as those for structural steel and marine use.



HUMAN EXPOSURE TO LEAD

FROM MOTOR VEHICLE EMISSIONS

Kenneth Bridbord, M.D.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Center for Disease Control
National Institute for Occupational Safety and Health
Office of Extramural Coordination and Special Projects

January 1977

PREPUBLICATION DRAFT

# HUMAN HEALTH CONSEQUENCES DUE TO LEAD EXPOSURE FROM AUTOMOBILE EMISSIONS

# COMMITTEE TO COORDINATE TOXICOLOGY AND RELATED PROGRAMS

DHEW

LAW OFFICES

AARON LOCKER

ONE PENN PLAZA

NEW YORK, N. Y. 10001

C(2 17-43

HAR 2 2 10 PH 177

(212) 594-7000 TWX 710-581-2884

March 21, 1977

Office of the Secretary Consumer Product Safety Commission 1111 18th Street, N.W. Washington, D.C. 20207

> Re: Determination of Safe Level of Lead in Paint- 42 FR 9404 February 16, 1977, Draft of Environmental Impact Statement On Lead Content in Paint

#### Gentlemen:

AARON LOCKER

THEODORE M. GREENBERG

GERTRUDE BERELSON

We represent Toy Manufacturers of America (TMA). TMA is a trade association composed of domestic manufacturers and importers of toys whose membership accounts for approximately 90% of the annual volume in excess of 3 billion dollars in sales of toys at the manufacturer's level in the United States.

TMA submits this statement as comment on the draft of the environmental impact statement on lead content in paint upon which the Commission requested comment.

Should the Commission decide in view of the enactment of the Lead Based Paint Poisoning Prevention Act that it be required to implement the provisions of that Act and its proposed regulations under the Consumer Product Safety Act, then TMA recommends and supports alternative No. 5 listed in the draft environmental impact statement on lead content in paint.

TMA recommends that the final level for lead in paint be arrived at in two stages. The first, by lowering the allowable lead level to 0.25% on June 23, 1977 and maintaining said level for two years to allow the paint industry and its suppliers to improve drier formulations which will substitute for lead, and finally, on June 3, 1979 by lowering the allowable level of lead in paint to a level of 0.06%.

This alternative, if adopted, would permit the paint industry to achieve the lowest level of lead proposed by CPSC regulations by means of a staged reduction in the maximum allowable lead level from 0.5% to 0.25% and finally to 0.06%. The staged reduction in alternative No. 5, while

LAW OFFICES

AARON LOCKER

Office

Office of the Secretary, Consumer Product Safety Commission

Page -2-

still necessitating the implementation of careful housekeeping measures, certification of raw material suppliers and testing the finished products would moderate substantially the drastic effect upon the paint industry and its customers of adopting immediately the 0.06% level and allow industry two years to adopt and develop complying paints and coatings for its products.

Very truly yours,

AL:1s

laron Locker



2-021730E081 03/22/77 ICS IPMBNGZ CSP WSHB 3123211470 MGM TDBN CHICAGO IL 599 03-22 1154A EST

OFFICE OF THE SECRETARY
CONSUMER PRODUCT SAFETY COMMISSION
1111 18TH ST NORTHWEST
WASHINGTON DC 20207

RE COMMENTS ON CONSUMER PRODUCT SAFETY COMMISSION'S (CPSC) NOTICE ON LEAD BASED PAINT PER REQUEST FOR COMMENTS IN CONSUMER PRODUCT SAFETY COMMISSION ANNOUNCEMENT OF DECISION ON DETERMINATION OF SAFE LEVEL OF LEAD IN FEDERAL REGISTER, VOLUME 42, NUMBER 32, WEDNESDAY, FEBRUARY 16TH 1977.

DEAR MR SECRETARY THE FARM AND INDUSTRIAL EQUIPMENT INSTITUTE (FIEI) HAS RECEIVED COMMENTS FROM ITS MEMBERSHIP IN REGARDS TO THE CPSC ANNOUNCEMENT OF DECISION REGARDING DETERMINATION OF SAFETY LEVEL OF LEAD IN PAINT AS PUBLISHED IN THE FEDERAL REGISTER, VOLUME 42, NUMBER 32, WEDNESDAY, FEBRUARY 16TH 1977.

THE FIEL IS A TRADE ASSOCIATION OF FARM ANDINDUSTRIAL EQUIPMENT MANUFACTURERS. ITS APPROXIMATELY 240 ACTIVE MEMBER COMPANIES MANUFACTURE APPROXIMATELY 90 PERCENT OF THE FARM AND LIGHT INDUSTRIAL EQUIPMENT PRODUCEDIN THE U.S. THE FIEL REPRESENTS THE CAPITAL GOODS TYPE OF EQUIPMENT PRODUCED BY ITS MEMBERS.

THESE CAPITAL GOODS ARE OPERATED ON FARMLANDS, FARMSTEADS, OR THE NON-RESIDENTIAL WORK AREAS OF THE FARM AND CONSTRUCTION SITES. AS SUCH, THEY WOULD NOT BY LOCATION OR EXPOSURE TO CHILDREN QUALIFY AS "TOYS" OR "ARTICLES OF FURNITURE". STANDARD SAFETY PRACTICES IN FACT DISCOURAGE CHILDREN FROM BEING IN THE AREA OF THIS MACHINERY OR COMING INTO CONTACT WITH IT.

FARM AND INDUSTRIAL EQUIPMENT IS PROTECTED WITH PAINTS HAVING THE NECESSARY LEAD CONTENTS IN ORDER TO PROVIDE REASONABLE PROTECTION FROM A VARIETY OF EXPOSURES. THESE MACHINES ARE SHIPPED TO TAKE ADVANTAGE OF ECONOMICAL SHIPPING PROCEDURES. THEY ARE EXPOSED TO WEATHER AND VARIOUS MEANS OF CONSTRAINT IN SHIPPING SO THAT "TOUCH-UP" OR IN SEVERE CASES SOME REFINISHING IS REQUIRED. THE "TOUCH-UP" OR REFINISHING IS GENERALLY DONE BY THE DISTRIBUTORS OF THESE PRODUCTS UNDER CONDITIONS WHICH WOULD NOT LIKELY INVOLVE EXPOSURE TO CHILDREN. THE "TOUCH-UP" WOULD NOT RESULT IN A STEADY INGESTION BY CHILDREN WHICH APPEARS TO BE A KEY CPSC CONSIDERATION.

BECAUSE OF WEATHERING WHEN NOT IN USE, CONSISTENT OUTDOOR EXPOSURE, THE DURABILITY REQUIRED OF THESE CAPITAL GOODS FINISHES, TO PROTECT FROM RUST AND CORROSION AND TO PREVENT FREQUENT REFINISHING, A DURABLE, QUALITY, LEAD BASED PIGMENT WILL IN THE LONG RUN REDUCE THE NEED TO

L . Nigher - Dike Flut - I Northers



REPAINT AND THUS BENEFIT ALL CONCERNED. ACCORDINGLY FIEL RESPECTIVELY SUBMITS THAT THE CAPITAL GOODS PRODUCTS OF ITS MEMBERS BE GRANTED AN EXEMPTION AND BE SPECIFICALLY DESIGNATED AS OUTSIDE THE SCOPE OF THE CONSUMER PRODUCTS, NAMELY TOYS AND FURNITURE AS SET FORTH IN THE DRAFT ENVIRONMENT IMPACT STATEMENT (EIS) ON LEAD CONTENT IN PAINT, DATED JANUARY 19TH 1977.

THE EXEMPTIONS REQUESTED WOULD COVER THE FOLLOWING CLASSES OF COATINGS:

- (A) TOUCH-UP COATINGS FOR AGRICULTURAL AND INDUSTRIAL EQUIPMENT
- (B) REFINISH COATINGS FOR AGRICULTURAL AND INDUSTRIAL EQUIPMENT

FIEI SUBMITS THAT THE CPSC RECOGNIZE THE UNIQUENESS OF THESE COATINGS AND THEIR USE AND CONTRIBUTION TO AGRICULTURAL AND INDUSTRIAL EQUIPMENT INDUSTRY, THE FARM AND INDUSTRIAL EQUIPMENT INDUSTRY MEMBERS ARE WILLING TO WORK COOPERATIVELY WITH THE CPSC TO REACH THEIR OBJECTIVE TO PROVIDE A SAFE PROGRAM THAT MEETS THE CPSC OBJECTIVES RELATIVE TO THE USE OF LEAD BASED PAINTS ON ANY TOY OR FURNITURE ARTICLE. WE TRUST THAT THE CPSC WILL UTILIZE OUR EXPERTISE IN WORKING SAFELY WITH LEAD BASED PAINT AND ALLOW US TO CONTRIBUTE TO MEETING THE CPSC GOALS ON A SUPPORTIVE BASIS. WE DO NOT BELIEVE THAT THE CPSC LEAD BASED PAINT SAFETY DETERMINATION SHOULD COMPROMISE A COMMERCIAL AREA THAT DOES NOT CONTRIBUTE TO THE PROBLEM (TOYS AND FURNITURE) UNDER CONSIDERATION. AS AN INDUSTRY WE WOULD SUPPORT THE CPSC WITH SUCH EXPERTISE AS WE HAVE DEVELOPED IN HELPING THE CPSC REACH ITS GOALS. SINCERELY

EMMETT BARKER EXECUTIVE SECRETARY FIEL 410 NORTH MICHIGAN CHICAGO IL 60611

11:55 EST

MGMCOMP MGM

FULLER OBRIEN®

('(277-45

## THE O'BRIEN CORPORATION

March 21, 1977

Sayde E. Dunn Secretary Consumer Product Safety Commission 1111 18th Street, N.W. Washington, D.C. 20207

Dear Ms. Dunn:

As a major manufacturer of paints and coatings The O'Brien Corporation would like to address comments to the Commission on the "Proposed exemption of certain lead containing paints and other similar surface coating materials" (37FR 25849-53 Dec., 5, 1973), which the Commission is required to rule on and which would be affected by provisions contained in the "Draft Environmental Impact Statement on lead content in Paint."

Before going into specific comments on the seven special purpose coatings for which exemptions have been requested, we would like to make some general comments and request clarification on certain issues.

(1) The proposed regulations would make any article of furniture a banned hazardous product if it is coated with a material which contains lead in excess of that level which is determined to be safe.

The term furniture is not clarified or further defined in the proposals and would therefore have to be taken to include industrial office furniture, and metal furniture as well as household furniture and wood furniture. We would propose that the final implementing regulations distinguish and exempt industrial office furniture and all metal furniture from lead content requirements, regardless of the "safe level" limit.

The intent of the Commission as required by Congress is, obviously, to eliminate or reduce the possibility of ingestion by children of lead containing coatings. This would be well served by requiring that furniture, constructed of wood or other types of gnawable or chewable material, be restricted as to lead content of coatings. Because of its inherent hardness, furniture constructed of metal is certainly not a gnawable or chewable surface. In addition, coatings that are applied to metal furniture at the time of manufacture are primarily liquid or powder coatings which must be baked as a part of the curing process. Baking type coatings are used in this application because of their inherent toughness, durability and excellent adhesion properties. The likelyhood or even possibility of a young child being able to chew or remove any of the coating material is negligable.

It is for the above reasons that we feel the use of lead containing coatings on metal furniture does not pose a hazard to the consumer. It should also be noted that the consumer directly benefits from the use of lead containing coatings on metal furniture. These benefits are primarily realized in the area of cost savings. Non lead substitutes for leaded pigments are generally five to ten times more expensive. Their use would increase the cost of the finished coating by two to four times. We would be forced to pass this cost on to our customers and they in turn would have to increase the price they charge consumers for their products.

- (2) Appliances such as stoves, refrigerators, dishwashers, etc., should also be specifically exempted from the regulations since for the same reasons stated above for metal furniture, they are not subject to chewing or removal of the coating and therefore present no hazard to the consumer.
- (3) One area which should be specifically clarified is: Would a banned hazardous product be created by applying a coating to a toy or article of furniture after June 22, 1977, if that coating were manufactured before June 22, 1977, and contained between 0.06 and 0.5% lead? We feel that it would be wrong to penalize a company which possessed stocks of materials which fall into this catagory. It would be an almost impossible task to try to find and notify everyone who may have such materials on hand. The best approach would be to let current stocks exhaust themselves and require that only those coatings manufactured after a certain date be required to meet the new lead requirements.

With regard to the special purpose coatings for which exemptions have been requested we would like to offer the following comments:

- (1)Automotive, agricultural and industrial touch-up and refinish coatings: In most cases the end uses of these products would exclude them from consideration as a consumer commodity but it is essential that they be available on the retail level. Many users of these products buy them in small quantities and must purchase them from local dealers rather than direct from the factory. The use of lead containing pigments is necessary in these coatings to match the color of the original coating, to provide suitable corrosion resistance and durability, and to keep the cost of such coatings at a reasonable level. There is little hazard of ingestion when these coatings are used for their intended purpose. We feel that precautionary labeling to show the lead hazard and restricted use for the coating as well as notification to stores and dealers to restrict sales to the proper intended use should protect the public while keeping available products necessary for refinish and touch-up.
- (2) Industrial and commercial building maintenance coatings and traffic and safety marking coatings: As was mentioned above it is necessary to have these types of coatings available on the local level for small volume users. When restricted to their proper uses and labeled

to indicate the hazards there would be little danger to the public of lead ingestion. The use of lead is necessary to these coatings to provide corrosion protection at a cost that is suitable to their use and to provide the color and drying properties necessitated by their intended application.

- (3) Graphic art coatings for billboards, road signs, etc., should be regulated only to the extent of precautionary labeling and restricted use. Eliminating the lead in these products would raise their cost substantially and would provide cost substantially and would provide no benefit to the consumer since they are used in areas which are inaccessable to children.
- (4) Exterior siding materials of redwood, cedar and mahogany present some unusual coating problems in that they contain water soluble extractives which will "bleed through" many types of coatings causing an unsightly staining condition. We have found that the use of an alkyd (solvent based) primer will in most cases prevent the bleed through of these extractives especially when coupled with our alkyd topcoat. But the use of an alkyd primer can be disadvantageous from several points:
  - a) The use of an alkyd primer with a latex topcoat can lead to mildew growth between the paint films causing adhesion loss of the topcoat.
  - b) The California Air Resources Board (CARB) is currently considering a proposal which would, drastically curtail the use of solvent based coatings within the state of California. This would in a short time negate the use of effective alkyd primers for this application.
  - c) Consumers prefer to use latex paints because of their ease of application, quick dry, and ease of cleanup.

The best alternative then is to use a latex wood primer for this application. A latex primer, however, is ineffective in preventing the migration of the water soluable extractives contained in redwood and cedar siding unless it is formulated with leaded pigments. Despite extensive investigation over the past 5 years by paint manufacturers and suppliers alike, no satisfactory substitutes for lead pigments in exterior house paint latex primers has been found. None is expected in the foreseeable future. The danger of ingestion by children of paint chips due to peeling and flaking of primers - designed for their excellent adhesion - around the outside of buildings is very small.

Sincerely,

THE O'BRIEN CORPORATION

Frank A. Delke Quality Assurance

FAD:dm





CC2-77-46

## NEW YORK UNIVERSITY MEDICAL CENTER

Institute of Environmental Medicine

550 FIRST AVENUE, NEW YORK, N.Y. 10016 AREA 212 679-3200

ANTHONY J. LANZA RESEARCH LABORATORIES AT UNIVERSITY VALLEY LONG MEADOW ROAD, STERLING FOREST, TUXEDO, N.Y. MAIL AND TELEPHONE ADDRESS: 550 FIRST AVENUE, NEW YORK, N.Y. 10016

March 23, 1977

Secretary Consumer Product Safety Commission Washington, D. C. 20207

Dear Sirs:

The Draft Environmental Impact Statement on Lead Content in Paint, January 19, 1977, appears to be complete, clear, and well organized. I have read with particular care section I-D regarding potential health effects and Appendix A which supports section I-D.

I am in full agreement with the closely and carefully reasoned conclusions drawn in Appendix A, and the recommendations of the committee of the National Academy of Sciences quoted in section I-D.

The first four paragraphs of section I-D have omitted critical material while attempting to paraphrase the statements by the NAS committee. This results in statements which omit qualifications or convert correlations or hypotheses to apparent facts. I do not believe these paragraphs are essential to the impact statement; however, if they are included the material could be better handled by direct quotes of the carefully prepared NAS document.

The section on solvent thinned paints on page I-B-ll indicates that 32% of samples from a CPSC survey exceeded 0.06% Pb in dried solids and 7.6% exceeded 0.5% lead. Despite this, it is stated "trace contamination in solvent systems does not seem to be a general problem." It would appear that the presence of significant amounts of lead in one-third of all samples could be considered a general problem. The conclusion does not seem to be well supported by this data.

I hope these comments are of help in completing the action of this matter.

Very truly yours,

Theo. J. Kneip, Ph.D.

Deputy Director

Laboratory for Environmental Studies



Simpson

CC2-77-47

MAR 72 3 52 PM 177

SAFETY STREET

**RESEARCH CENTER** 3330 Overlake Parkway • P.O. Box 566 Redmond, Washington 98052 • 206-885-4181

March 17, 1977

Ms. Sadye E. Dunn, Secretary Consumer Product Safety Commission 1111 18th Street, N.W. Washington, D. C. 20207

Dear Ms. Dunn:

On behalf of the forest products industry and those house owners of the future who purchase homes sided with redwood or western redcedar, I urgently request exemption of exterior wood primer coatings from the Lead-Based Paint Poisoning Prevention Act.

Redwood and western redcedar are the best wood siding species available, but both species contain water-soluble color extractives to which the woods owe their attractive color, excellent dimensional stability, natural decay resistance and superior paint-holding characteristics.

Unfortunately, water coming in contact with the woods dissolves and leaches the extractives from them. When the solution of extractives reaches the painted surface, the water evaporates and deposits the extractives as an unsightly reddish-brown stain.

The most effective means of preventing extractive staining is to prime the wood with a paint primer pigmented with lead silicate, a white pigment. Three quarters to 1-1/4 pounds of lead silicate per gallon is the recommended amount. Lead silicate effectively insolubilizes the color extractives, whether used in solvent-borne or water-borne primers.

At least five chemicals have been suggested as a replacement for lead silicate in this capacity, but none, to my knowledge, is as effective as lead silicate.

I sincerely believe that failure to exempt exterior wood primers from the Lead-Based Paint Poisoning Prevention Act will work a hardship on the forest products industry, the residential construction industry, and on the home-owning segment of our citizenry.

Hence, my urgent appeal for the exemption.

Sincerely

Don F. Laughnan Senior Specialist

Note t. Loughnew

Finishes

DFL:rae

## THE UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE AND DENTISTRY AND

## STRONG MEMORIAL HOSPITAL

601 ELMWOOD AVE. ROCHESTER, NEW YORK 14642

DEPARTMENT OF PEDIATRICS

March 24, 1977

Mr. Walter Hobby, Director
Bureau of Economic Analysis
Consumer Product Safety Commission
5401 Westbard Avenue
Room 533
Washington, DC 20207

Dear Mr. Hobby:

I have received the CPSC document, "Draft Environmental of Impact Statement on Lead Content in Paint", sent me by your agency. To the extent that I feel I understand many of the implications and effects that the change in the lead content regulation will have on a host of factors in our modern living, I will attempt to make my personal comments.

- 1) The lead source in childhood lead exposure is primarily the interior household surfaces. It is already there, and has been for years. When suitably covered with a coating of low-level paint, which remains intact, it is probably of limited risk as a lead source. Porches (floors and railings) seem to have high levels of lead in painted surfaces. They chip badly. Exterior windowsills are also hazardous. Exterior walls which shed, weather or are scraped seem to contribute to causing high content of lead in the soil near the foundations of homes.
- 2) Toys, pencils and furniture probably have a lower risk in this regard.
- 3) Paint on appliances, automobiles, bridges and metals exposed to rust are, in my opinion, of negligible importance and contribute to no significant degree to this problem.

Consonant with my beliefs is the suggested regulation embodied in alternative No. 3. I am particularly in favor of the statement on page II-A-9. "Special care must be exercised in regulating or exempting the specialized coatings described above. The Commission can only regulate products, and cannot regulate the end uses of any products. Thus, any coating that is exempted must be a truly specialized product, and not merely a general use product which is labelled, among other uses, as a substitute for a given exempted specialty coating." Exterior primer coatings for application on redwood and cedar should,

I feel, be carefully controlled as this kind of paint may be fairly easy to come by in hardware stores and could, conceivably, be used on windowsills, porches, doorways and other accessible places.

Two considerations make me consider alternative No. 4.

1) Tool-up time will probably be a year to effect testing and controls as well as reshuffling of paint production operations.

2) The need for an insecticide and fungicide in water-base paint came upon me as a surprise. I have learned (on good authority) that phenyl mercuric acetate and phenyl mercuric oleate are virtually the only effective insecticides for this purpose. Since I know that the use of mercury as an insecticide has been prohibited by a 1976 ruling of the EPA we're "caught between a rock and a hard place" until an effective insecticidal agent can be found. Whether a year's grace can produce such an agent I don't begin to know.

Thus, while I favor steps to ameliorate the exposure of children to lead, I do not favor the creation of a series of secondary spin-off problems by a precipitous move to reduce the lead in paint from 0.5 to 0.06%.

Thank you for the opportunity to respond to your thoughtful and carefully constructed document. I am sorry if my response is not as prompt as it might be.

Sincerely yours,

IN Every

James W. Sayre, M.D. Director, In-Patient Services

cc: Ms. L.R. Maloney

Mr. G.K. Degnon

Ms. J. Noyes

Dr. R.W. Miller

Dr. J. Chisholm

JWS/pb

CC2-77-49

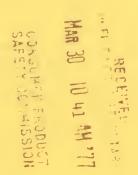


## PAINTS · CHEMICAL COATINGS · PRODUCT FINISHES

5300 SUNRISE ST., P. O. BOX 14509 HOUSTON, TEXAS 77021 Phone 713/641-0661 CABLE ADDRESS: "NAPKO" HOUSTON TELEX: 762-665

March 17, 1977

Secretary
Consumer Products Safety Commission
1111 18th St. N.W.
Washington, D.C. 20207



Dear Sir:

We wish to make some comments on "Draft Environmental Impact Statement on Lead Content in Paint" as published in Federal Register, February 16, 1977.

- 1) The use of lead based pigment in anti-corrosive primers for steel is very much needed. At this time, no satisfactory replacement is available. Serious problems of corrosion of steel result from improper or inadequate coatings.
- 2) Certain colors, based on lead, are economically needed to meet the service requirement in certain areas such as traffic paints, machinery enamels, sign paints, etc.
- 3) The use of other pigments not containing lead results in more expensive products, with poorer performance with further cost to the consumer.
- 4) The use of lead containing pigments in paints should be completely acceptable except for paint for residential buildings or other surfaces, such as toys, furniture, etc., accessible to young children. (Note: For lead poisoning to occur, it must be ingested. It is highly unlikely that hard, tough coatings, could be removed for this purpose.)
- 5) The rule of reason must prevail to the effect that lead containing coatings which are essential for functional efficiency and not accessible for ingestion, should not be banned.

Consumer Products Safety Commission 3/17/77 Page 2

> Excessive regulation and control beyond that required for general welfare is contrary to the public interest. The useful function of lead in coatings has been demonstrated in areas not considered harmful to humans.

We request that consideration be given to promulgating regulations on lead content of special coatings to not restrict or prohibit the use of these materials where economic and functional advantage is evident.

Sincerely,

L. B. Odell, FAIC

Technical Administrative Manager

L. B. Ortell

/sk

cc: Murray

Murray Roland, NPCA

Rench File File

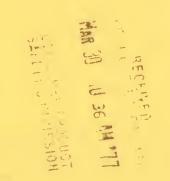


## The Children's Hospital Medical Center

300 Longwood Avenue, Boston, Massachusetts 02115, Telephone: (617) 734-6000

March 22, 1977

Sadye Dunn, Secretary U. S. Consumer Product Safety Commission 1111 18th Street, N. W. Washington, D. C. 20207



Dear Miss Dunn:

I have read the draft environmental impact statement on lead content in paint. I heartily agree with the intent to reduce the standard for lead-based paint to .06%. In previous communications to the CPSC, I have indicated my reasons for this assertion.

I have a few comments to add to the statement. They are as follows:

- (1) I believe that the degree of beneficial impact is more than moderate. I think this is a significant step in preventing one of the most serious diseases for American children.
- (2) I disagree with any attempt to exempt exterior paints. Exterior paints flake and become part of the dirt and dust. Frequently exterior paints are misused by the consumer and applied indoors. For these reasons I think that the total environment of the growing child should be shielded from lead-based paint.
- (3) I disagree with any lead-time of a 1 3 years for manufacturers. Having decided that 0.5% lead-based paint is hazardous, it would seem incumbent on the government to see that manufacturers remove this hazard without delay. Since 75 - 80% of the manufacturers are already in compliance, it seems to me to be no significant hardship to move with dispatch.

Sincerely yours Herbert L. Needleman, M. D.

Director, Lead Exposure Study



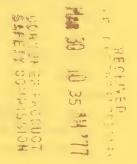
CC.2-77-51(L)

March 23, 1977

Secretary
Consumer Product Safety Commission
1111 - 18th Street N.W.
Washington, D.C. 20207

SUBJECT: Lead in Paint Standard

Gentlemen:



Tempo Products Company is absolutely and totally opposed to the change in the permissible lead content of consumer paints from 0.5% to 0.06%. This arbitrary action on your part is without accurate scientific justification and could have serious economic impact on the paint industry.

Tempo Products Company is engaged in the distribution of exact-match refinishing spray products to the automotive aftermarket. We are certain that you realize that many automotive refinish products use lead in minute amounts in the pigments and in the drier systems. The virtual elimination of lead from consumer paints as proposed in the new regulation would make exact color matches virtually impossible in some of our products. This would have the adverse effect of completely eliminating the product from the market.

For those products which could be re-formulated with substitute materials, there would be the adverse economic impact of an increase in price since the substitute materials have been found to be many times more expensive than the present materials being used.

Those products which could be re-formulated would suffer in quality. Tests have already been conducted on "lead free" substitute formulations of our paints. We find these to be much less effective in color matching, color covering, rust inhibiting and corrosion resistance.

Since most of our products are geared at the automotive do-it-yourself market, the overall effect of the above mentioned facts would be to increase the price of our products to the consumer. This would drive them out of reach of many people and may even force them off the market entirely. This would affect the automobile owner by forcing him to take his car to a professional repair person resulting in a much higher repair bill, thus fueling the fires of inflation at an accelerating rate.

Our spray product business represents \$5,000,000 to \$6,000,000 in sales per year which is over 50% of our company's business. The impact of















these proposed regulations could be severe enough to drive the majority of our products off the market because of drastically increased costs. This could have the severe economic impact of the loss of jobs in our community, the loss of tax revenues for our community and the loss of products available to the automotive aftermarket.

It is our understanding that the purpose of the regulations involving lead content in paints was to prevent the ingestion by children of large quantities of lead from chewing on lead based paints. If this is, in fact, the intent of the Commission's actions, we feel you should consider the fact that it is highly unlikely that a child would ever have occasion to chew on an automotive engine block or fender.

In summary, we urge you to reconsider your action. We further suggest that an economic impact statement be prepared in regard to this regulation when you have rewritten it. And, we suggest special consideration for those products (such as our automotive products) which have little chance of ever coming in contact with small children.

Yours very truly,
TEMPO PRODUCTS COMPANY

David L. Schaar Sales Manager

DLS:sd

C(2-77-52(L)



STATE OF NEW YORK TO THE STATE OF NEW YORK TO THE STATE OF HEALTH 4 48 PH 17

March 33, 1977

Re: Draft Environmental Impact Statement on Lead Content in Paint Contract No. CPSC-C-77-0009

Dear Mr. Secretary:

The New York State Department of Health appreciates the opportunity to comment on the Draft Environmental Impact Statement concerning lead content in paint.

We understand the position of the National Academy of Sciences that they could not definitively choose a level between the acknowledged upper limit of 0.5% lead level in paint and the suggested "safe" 0.06% lead level in paint which could form a new standard below the 0.5% level. The level of 0.06% lead subsequently selected and shown in this Draft Environmental Impact Statement would thus follow the standard adopted in the 1976 amendments to the Lead Based Paint Poisoning Prevention Act (P.L. 94317).

We estimate that the major impact of this requirement will be to force use of other drying agents in paint to obtain the 0.06% lead level in final dried paint products, paints or coatings. Combinations with other driers--organic compounds containing cobalt, zinc, zirconium, or calcium--will have to be evaluated for toxicity, in turn. All of these organic compounds except calcium are considered toxic at various levels in the environment, but no data is supplied as to potential dangers presented by their increased use. Also, where lead driers are more stable than the substitute in their capacity to retain drying ability during storage in warehouses and on dealers' shelves, the effect of long-term storage of paints without lead driers is not known.

The effects of a reduction of lead concentrations in paints are far more ranging than only a reduction in paint product quality and performance. Smaller manufacturers, especially, will be hit hard by increased costs due to monitoring requirements for the analytical testing of paint and costs due to increased usage of cleaning solvents, minimizing the risk of accidental contamination. The environment will be adversely affected by the addition of toxic substances which will necessarily replace lead as a paint additive. These as well as other economic and environmentally-important factors should be considered in the ultimate standard.

While there is no question that children, (particularly in age group 1-3) are particularly susceptible to poisoning from ingestion of lead-based paint chips, it is also recognized that paint is not the only environmental source of lead leading to lead poisoning. Recent data has shown that some cases of moderately high blood lead levels cannot be traced to lead-based paint. However, the most serious cases of childhood lead poisoning found today are related to the ingestion of old lead paints.

However, we would strongly urge that the proposed level of 0.06% lead level in paint not be applied to already-applied paint in housing. If any requirement were made that all accessible 0.06% leaded paint in the environment of a child with elevated blood lead levels be removed, the economic impact would be enormous on both the public and on health departments. It would mean virtually stripping nearly all existing housing surfaces.

Consequently, while this Department supports a reduction of the lead level in paint and prohibition against deliberate addition of lead to paint, especially in products used around children, we feel that the toxicity of substituted materials for lead should be evaluated. We do not want to replace one hazard with another. If the 0.06% lead in paint does not appear feasible, perhaps a staged reduction in levels from the existing 0.5% could be adopted.

Again, we thank you for the opportunity to comment in this important public health area.

Sincerely Yours,

Robert P. Whalen, M.D.

Commissioner

The Secretary
Consumer Products Safety Commission
Washington, D.C. 20207



UNITED STATES DEPARTMENT OF COMMERCE The Assistant Secretary for Science and Technology Washington, D.C. 20230

RECEIVED

cc2-77-53(4)

April 1, 1977

APR 5 3 20 PH '77
BUREAU OF ECONOMIC

Mr. Walter Hobby, Director Bureau of Economic Analysis Consumer Product Safety Commission 5401 Westbard Avenue Room 533 Washington, D. C. 20207

Dear Mr. Hobby:

This is in reference to your draft environmental impact statement entitled "Lead Content in Paint." The enclosed comments from the Domestic and International Business Administration are forwarded for your consideration.

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving four (4) copies of the final statement.

Sincerely,

Sidney R. Galler

Deputy Assistant Secretary for Environmental Affairs

Enclosure - Memo, Domestic and International Business Administration, March 23, 1977

deller



CC 2-77-53(6)



UNITED STATES DEPARTMENT OF COMMERCE Domestic and International Business Administration
Washington, D.C. 20230

MAR ... 1977

MEMORANDUM FOR: Sidney R. Galler

Deputy Assistant Secretary for

Environmental Affairs

THRU

Office of Business Research and Analysis

SUBJECT : Comments on Draft Environmental Impact

Statement on Lead Content in Paint.

This is in response to Dr. Edwin Shykind's request for comments on Consumer Product Safety Commission's Draft Environmental Impact Statement on Lead Content in Paint dated January 19, 1977.

The CPSC proposes to declare as banned hazardous products: (1) lead-containing paint and similar surface-coating materials containing more than 0.06 percent lead; (2) toys and other articles intended for use by children bearing lead-containing paint or other similar surface-coating materials containing more than 0.06 percent lead; and (3) articles of furniture bearing lead-containing paint or other similar surface coating materials containing more than 0.06 percent lead.

The comments contained in this memorandum relate to the impact of the proposed regulation on the toy and furniture industry, as contained in the draft Environmental Statement on Lead Content in Paint dated January 19, 1977 prepared for the Consumer Product Safety Commission by the National Academy of Sciences.

For the past decade, finishes on domestically manufactured wood toy products have been lead-free, and are lead free at the present time. Also, for the past 4 or 5 years, domestic metal toy manufacturers have been furnishing products with baked enamel finishes that are lead-free or have less than the proposed 0.06 percent lead content. Accordingly, the proposed regulation will have no impact upon the toy industry.

The finish industry has provided lead free stains, toners, coatings, fillings, enamels and varnishes for the past few years to the wood furniture industry. Most of the industry are currently using these finishes.



However, lead content primers are still being used on both wood and metal furniture while lead content enamels are being used on metal furniture. In addition, lead solvents remain in use as a drying agent. Industry sources indicate that acceptable lead-free pigments and drying solvents are currently available; however, the lead-free pigments cost 200-300 percent more than the leaded pigments now in use.

Only a small portion of the furniture industry would be required to modify their production processes to comply with the proposed regulation. In addition, the cost of finishing material is a small factor in the final price of furniture, and any increase would have little impact upon the total price of furniture. Therefore, the probable cost benefit to the ultimate consumer of the furniture industry's products would justify the promulgation of the CSPC proposed regulations.

Norris A. Lynch

Director

Consumer Goods and Services Division
Office of Business Research and Analysis

bcc: OCR / SJB Reading / OGC-SLemberg / OEX /
OS-for inclusion with comments on the proposal

Prepared by TBoyd:tab:4/2/77 Control #C-03731

Honorable Sam Munn United States Senate Washington, D.C. 20510

APR 7 1977

Dear Senator Nunn:

This is in response to your inquiry of February 25, 1977, in behalf of R. E. Mutzberg, concerning mirror backing paints containing leads:

Pub. L. 94-317, which amended the Lead Based Paint Poisoning Prevention Act, directed the Consumer Product Safety Commission (CPSC) to "take such steps and impose such conditions as may be necessary and appropriate to prohibit the application of lead-based paint to any toy or furniture article." To carry out this directive, the Commission, on August 10, 1976, proposed a regulation under the Consumer Product Safety Act which would, among other things, ban furniture bearing paint or other similar surface-coating material containing lead-based paint.

Lead-based paint has been defined, under Pub. L. 94-317, as paint containing more than 0.06 percent lead. This level becomes effective as to paint manufactured after June 22, 1977, based on a finding by the Commission, as discussed in the enclosed February 16, 1977 Federal Register notice.

For your constituent's information, we are enclosing a copy of the August 10, 1976 proposal, as well as other <u>Federal Register</u> notices relating to this proceeding. Although your constituent's letter was received too late to meet the October 26, 1976 deadline for submission of comments on the proposal, his views will be considered to the extent practicable by the Commission staff in formulating the final regulation.

I hope this information is helpful to you. If we may be of further assistance, please let me know.

Sincerely,

Carl Eifert Birector of Congressional Relations

Enclosures (8)

-

Sam Nunn

646

110 SENATE OFFICE BUILDING TEL. (202) 224-3521

## United States Benate

WASHINGTON, D.C. 20510

February 25, 1977

Consumer Product Safety Commission 1111 - 18th Street, N.W. Washington, D.C. 20207

Re: R.E. Mutzberg



Attached is a communication within the area of your authority. Because of my desire to be of all rossible assistance to my constituents, I would appreciate your giving this request every consideration, of course within existing guidelines.

Your response in duplicate form along with the return of the enclosure, will be greatly appreciated.

Sincerely,



3218 Wood Valley Road Atlanta, Georgia 30327



February 3, 1977

Hon. Sam Nunn 110 Russell Senate Office Bldg. Washington, D. C. 20510

Dear Senator Nunn:

I am seeking your council as to what appropriate action can be taken to retain the sizeable quantities of lead in a specific industrial paint product, mirror backing paint.

It is my understanding that Public Law 93-151, among some other rulings currently in effect, limits the amount of lead in all furniture products going into federally funded buildings. Mirrors for household and commercial buildings have been deemed to be furniture.

The apparent well intended legislation has been motivated as a protection of the public from ingesting paint with lead salts, largely out of consideration of fatalities that may have been caused by old style paints peeling from walls and otherwise ingested by children.

First, I submit the high improbability of getting access to the paint on the back side of a mirror because of its installation etc. to approach the term "never" for such a source of ingestion.

Secondly, the lead carbonate used in mirror backings in sizeable quantities in the range of 10% of the total mirror backing paint composition is a significant factor to anticipate long (25 year minimum) service life of the mirror. Without inclusion of this lead compound in the mirror backing paint there would be rapid deterioration in the perimeter areas of the mirror with a substantial black border appearing within a year of installation where the silver was corrosively removed through average environmental attack. In short, a far inferior mirror would be available to consumers.

The company in which I am employed as product manager for mirror backing paints, in East Point, Georgia, produces 80% of the specialized paint used domestically with additional export sales. The backings produced contain substantial amounts of lead carbonate as to the products of our competitors.

With these two primary considerations—the remote accessability to ingestion exposure; the value derived from the use of lead carbonate—and in recognition of the intended protection from lead poisoning by the legislation, would it be possible to request an exemption, exclusion or some other means to "properly" exclude mirror backing paints from compliance?

Further, with my knowledge, as a specialist in the overall needs of the product, and primarily a consumer, viewed from a consumer's viewpoint, the effect of the all inclusive legislation is in reality a disservice to the consumer overall interest.

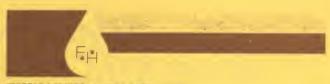
Will you kindly let me know what further action I may be able to take or what you may be able to do to effect this end?

Very truly yours,

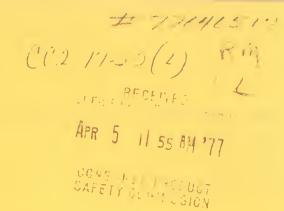
R. E. Mutzberg

R. E. Mutzberg dp

cc: Hon. Sam Nunn
275 Peachtree St. N.E.
Room 430
Atlanta, Ga. 30303



FINNAREN & HALEY, INC.
GENERAL OFFICES: 2320 HAVERFORD ROAD, ARDMORE, PA. 19003 (215) MI 9-5000
BEST BLOOMIN' PAINT IN TOWN!®



March 30, 1977

Secretary, Consumer Product Safety 1111 - 18th Street, N.W. Washington, DC 20207

Subject: Lead in Paint

Gentlemen:

We would like to go on record as being opposed to any ban on the use of lead in metal furniture such as filing cabinets, desks, shelving, etc., which ordinarily would not be in use in the home.

These articles, by their very nature, i.e. hardness or metal and the baked paint film would have to be considered unchewable by children. Substitute pigments for lead chromate in these applications are not only very expensive, but in many instances unsuitable for processing by thermal curing.

In addition, the low opacity of most organic yellows make the cost of formulation and application considerably more expensive than formulas based on lead chromate. We would be forced into costly laboratory expense to reformulate these coatings and we question whether there is any benefit whatsoever to the persons this regulation is supposed to protect.

DIH:hr

Daniel J. Haler, Jr.

President



## NATIONAL ASSOCIATION OF MIRRORXXX MANUFACTURERS

((2) 19.56(4)

5101 Wisconsin Avenue, Suite 504, Washington, 6.C. 20016

JAMES E. MACK EXECUTIVE SECRETARY & GENERAL COUNSEL

TELEPHONE: (202) 966-7888

April 7, 1977

**OFFICERS** 

President DON T. CULLER Gardner Mirror Corp. N. Wilkesboro, N.C.

Secretary-Treasurer JIM I. PINSKY Radiant Mirror Co. Los Angeles, Calif.

DIRECTORS

WILLIAM C. BEELER Virginia Mirror Co. Martinsville, Va.

ROY BUCHMAN Buchmin Industries Reedley, Calif.

FRANK E. MORRIS American Mirror Co. Galax, Va.

JOHN A. MORSE Toledo Plate & Window Glass Co. Toledo, Ohio

MILTON K. RUBIN Metropolitan Mirror & Glass Co. Mount Vernon, N Y. Mr. S. John Byington Chairman Consumer Product Safety Commission 1111 - 18th Street, N. W. Washington, DC 20207

Dear Mr. Chairman:

This has reference to the Commission announcement of February 11, which appeared in the Federal Register of February 16, page 9404, entitled, "Determination of Safe Level of Lead in Paint."

Comments were invited on the proposal until March 23. Unfortunately, this matter escaped our attention until after that date; and, therefore, we have been precluded from formally submitting comments on the proposal. It is our request that you give consideration to this informal submission. On April 4, we were accorded the opportunity of an in-person meeting with the professional staff of the Commission.

Our interest, and it is a very important interest, pertains to the use of lead in mirror backing paint.

This submission is in behalf of the members of the National Association of Mirror Manufacturers, which is, as the name implies, the national trade association representing the nation's manufacturers of mirrors. We estimate that over 90 percent of the mirrors manufactured in the United States (other than automobile mirrors) are manufactured by our members.

This submission concerns paint which is applied to the back of a mirror to prevent the silver reflective material and the copper backing from scratching and deteriorating. In order for this backing paint to be effective, it must of necessity contain a significant percentage of lead (more than 10 percent). Some mirrors are used in commercial establishments. Many mirrors also, and perhaps most, are used in the home. A mirror indeed is a household item.

No argument is advanced in opposition to the objective of preventing children from being exposed to paint which contains lead. Children do not get exposed to mirror backing paint; and, therefore, there



should be an exemption for mirrors so that mirror backing paint, which necessarily contains lead, may continue to be used. The paint is only on the back of the mirror, and the back of the mirror is practically never exposed. Many mirrors are framed, and even so, practically always are affixed to the wall. An unframed mirror is always affixed to the wall so that in neither event may a child become exposed to the paint on the back of a mirror.

Many years ago, silver spoilage occurred frequently; and an important business function of a number of companies was to resilver mirrors which had suffered deterioration. Today, mirror resilvering is a lost art because the mirrors produced today, unless exposed to salt, unless cleaning fluid gets behind them, or unless there are unusual moisture conditions, will not suffer spoilage. The Association occasionally does receive an inquiry from a person having an antique mirror which is treasured because of the frame, and the person wants to know how to get the mirror resilvered. It is very difficult to get a mirror resilvered today; and frequently the objective may only be attained by having a new mirror inserted in the frame. This point is made to illustrate that mirror manufacturing technology today is so advanced that mirror spoilage rarely occurs. A major reason why spoilage does not occur is the quality of the mirror paint backing.

We are anxious for our members to be able to continue to lawfully produce quality mirrors which have a tremendous life span. This will not occur if the lead has to be removed from the backing paint. The theory of protecting children from lead poisoning from household products is fine, and we applaud it. In this instance, however, the shoe does not fit. Children do not get exposed to mirror backing paint; and, therefore, there is no reason to prohibit the use of lead in mirror backing paint.

Respectfully submitted,

James E. Mack

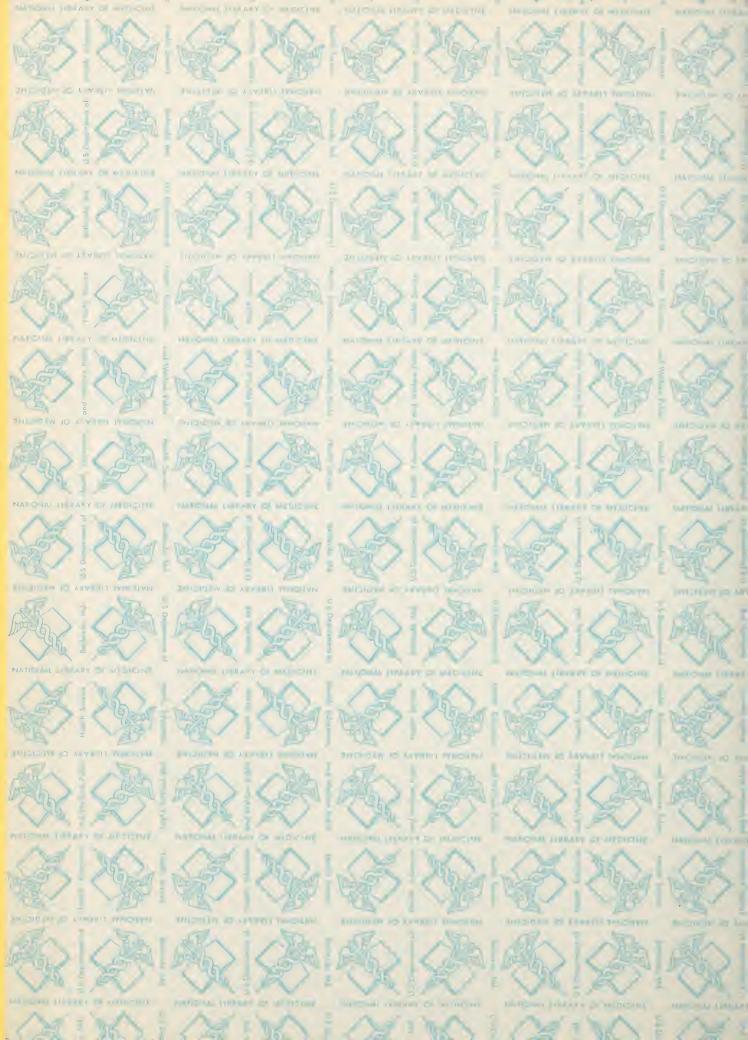
JEM:pnp

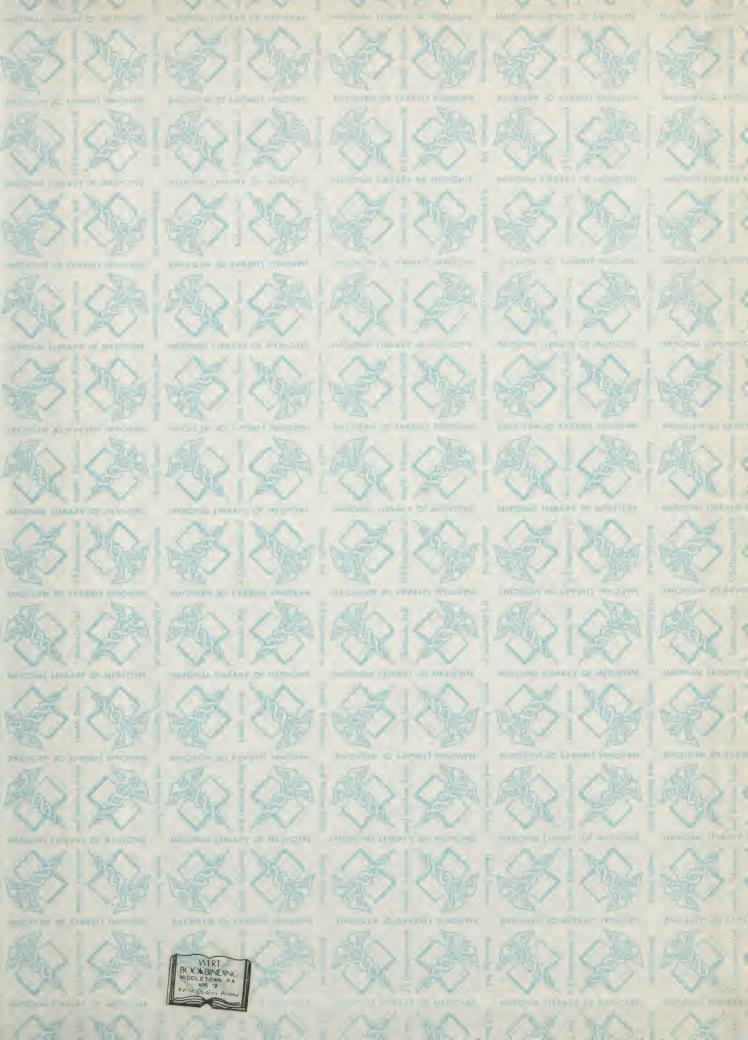
CC: Commissioner Barbara Franklin
Commissioner Thaddeus Garrett, Jr.
Commissioner Lawrence M. Kushner
Commissioner R. David Pittle
Secretary Sadye E. Dunn
Mr. William Menza











QV 292 U564f 1977

7801570

7801570

NLM 05069092 9

NATIONAL LIBRARY OF MEDICINE